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ABSTRACT

This manual is intended to train distance education staff in how to develop and edit teaching materials. Addressed in the individual units of the guide are the following topics: appointing writers, preparing to write, developing a course outline, selecting the structure of a unit, presenting the subject matter, developing student activities, providing study advice, judging reading level, editing the language of the material, developing testing materials, deciding on a format, copyediting, producing and printing the materials, maintaining the currency of and revising course materials, and coordinating writing and production. Each unit contains some or all of the following: a content outline, an introduction, exercises with comments, sample forms, a summary, and an assignment. A glossary and reading list conclude the manual. (MN)

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ED267274

COURSE DEVELOPMENT

a manual for editors of distance-teaching materials

by Janet Jenkins

U.S. DEPARTMENT OF EDUCATION
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Commonwealth Secretariat
1985

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Preface

For more than a decade, we in the Commonwealth Secretariat have taken an active interest in the viability of distance learning as a medium of education, indeed as the only possible one in certain situations. During these years all levels of education have experienced a spectacular increase in the number of distance teaching institutions and enrolments. The Secretariat has responded on the information side by publishing directories on the Commonwealth dimension of this phenomenon. At the more operational level the Commonwealth Fund for Technical Co-operation has funded the establishment of the Namibian Extension Unit in Lusaka and the South African Extension Unit in Dar es Salaam. These institutions now offer educational opportunities for people displaced from their native countries and denied education by the politics of apartheid.

We believe there is a need for practical handbooks for those who have responsibility for managing distance-teaching institutions or for those producing instructional materials to be used by their students. The first of these was a volume, "Training Teachers at a Distance", which went into the economics and practicalities of using distance methods for teacher education. The present volume, "Course Development", is an attempt to help those responsible for producing effective teaching materials for distance education.

It marks a new step in the relationship between the Commonwealth Secretariat and the International Extension College. Although the Secretariat has made extensive use of IEC's services over the years, this is our first joint publication. By coming together in this way we hope to help a wider clientele to benefit from a book offering detailed guidance based on the extensive experience of its author, Janet Jenkins.

I have pleasure in commending this venture, confident that it will contribute sound, practical advice for hard pressed editors and will help to raise the quality of education offered by distance methods around the Commonwealth.

Peter Williams
Director
Education Programme
Human Resource Development Group
Commonwealth Secretariat

Acknowledgements

I would like to thank all colleagues at the International Extension College, and Service Farrant and Hilary Perraton of the Commonwealth Secretariat Education Programme for their comments on drafts of this manual. Some of the materials were also used in draft form with the editors at the Institute of In-service Teacher Training, Mogadishu, Somalia, and with participants on the 1984 and 1985 courses on Distance Teaching in Developing Countries at the University of London Institute of Education.

I would also like to thank the following institutions for permission to use examples: College of External Studies, Papua New Guinea (22); Department of Non-formal Education, Botswana (18, 36); International Council for Correspondence Education ('Tell me How to Write'); International Correspondence Schools, National Extension College and Wolsey Hall (10); INADES-formation, Kenya (24, 35); Kenya Language Arts Project (29); Lesotho Distance Teaching Centre and National Teacher Training College, Lesotho (3, 19, 28); Mauritius College of the Air (13, 25); National Extension College, Cambridge (2, 4, 7, 8, 9, 11, 15, 17, 20, 21, 23, 27, 31, 32, 33, 40, 41); Namibian Extension Unit, (30, 38); National Teachers' Institute, Nigeria (37); Open Learning Institute, Canada (39); Open University, Milton Keynes (14, 16); Teaching Aids at Low Cost, London (26); Zambian Co-operative College (1, 12); Zim-Sci, Zimbabwe (18, 19).

The manual was written and produced with financial assistance from the Commonwealth Secretariat.

About this book

This manual is intended for people who are working, or about to start work, in distance teaching, and who need to know how to edit written materials. It covers all the steps in developing written course materials, from commissioning writers to printing. It explains what an editor does and, through the exercises and assignments, provides you with practical training.

How to use the book

The manual has 15 units, each of which covers a step in course development. The diagram of editor's activities summarises the editor's role in the whole process. For a complete training you can work through the whole book or you can use the diagram to help you select those units that are related to your own job.

You can use the manual on your own, or in a group of people working together, or as a correspondence course. However you use it, try to find opportunities to discuss the work you are doing with colleagues.

I suggest that you start your study of each unit by reading the introduction, and then glance quickly through the rest to see what there is to do. Then start again at the beginning of the unit, studying it slowly and doing the exercises. You may want to study some units more carefully and in greater detail than others.

All the units contain exercises, laid out so that you can complete them by writing in the book. I have tried to leave enough space, but if you want to write more than the space will allow, or share your manual with other people, you can write your answers in a separate exercise book.

Many of the exercises are based on examples taken from distance-teaching texts. Some examples have been chosen because they are good models, others because they are bad. The bad ones are mostly taken from old National Extension College courses, mostly now withdrawn and replaced with better, up-to-date materials. I have included some good examples from NEC courses as well, along with others from many different institutions.

Most units end with a substantial piece of work called an assignment. This usually covers the whole unit, and gives you an opportunity to relate the themes discussed to your own circumstances. You should aim to discuss your work with a colleague, as suggested in the assignments.

We expect that this manual will usually be read and studied by distance-teaching staff on their own or in small groups, or used in staff-training courses. The International Extension College is, however, prepared to treat it as a correspondence course for any readers who wish to use it in this way. If you want this service, write to the address below for further details before you start. Essentially, you will send completed assignments to us as you do them, and we will comment on your work and return it to you. We will normally have to make a charge to cover postage, tutorial and clerical costs.

A number of technical terms such as 'unit' and 'assignment' have been used in this manual. You will find a glossary at the end of the book.

You will also find a list of books for further reading. I have attempted to restrict the list to books that are likely to be both useful and accessible.

This manual is one in a series of training manuals for distance educators. The other three so far, all published by the International Extension College, are on writing, administration and research for distance teaching. If you would like further information on these, or would like to comment on this manual, or would like correspondence tuition, please write to:

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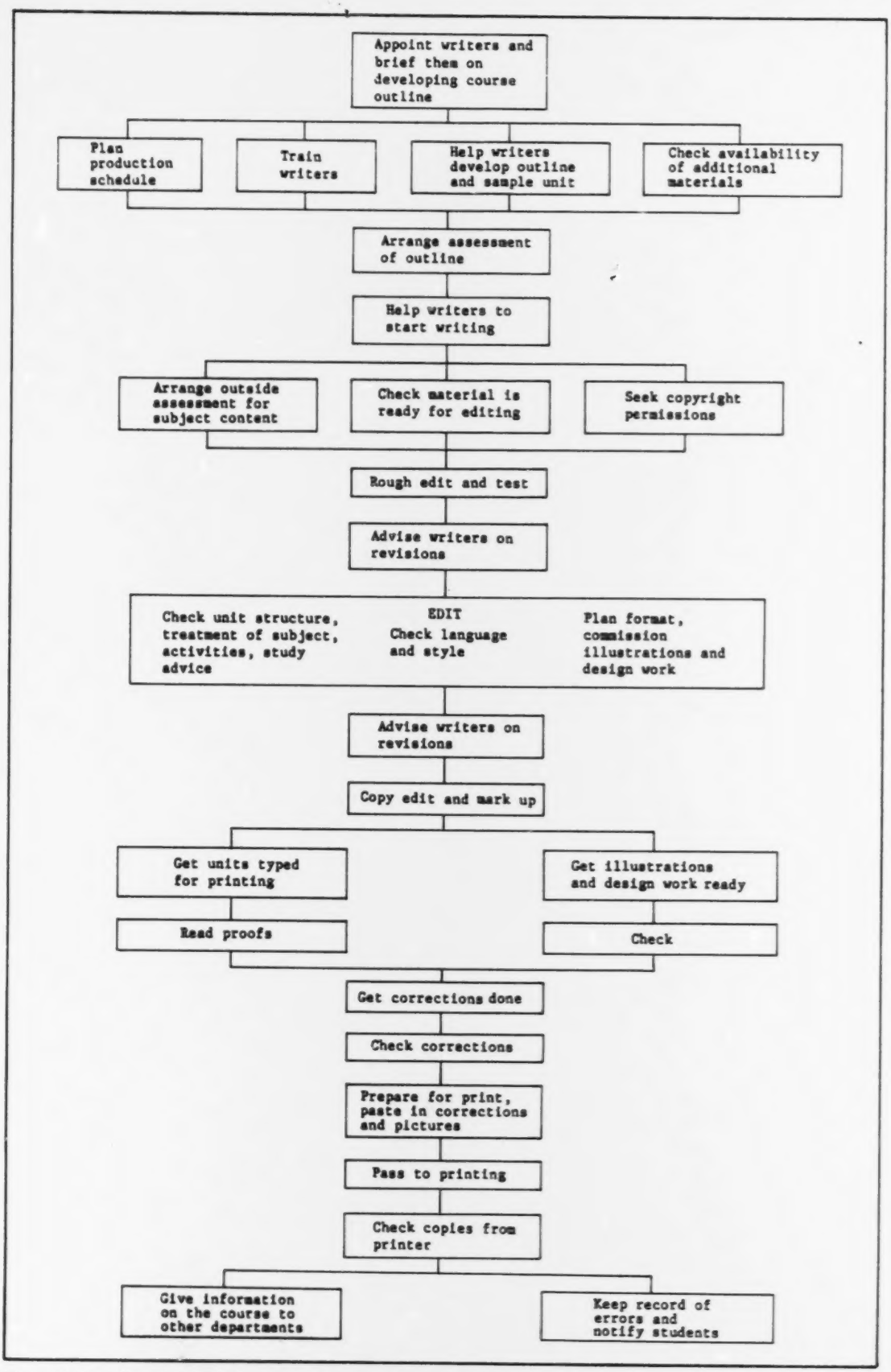
Appoint writers and brief them on developing course outline
Plan production schedule
Train writers
Help writers develop outline and sample unit
Check availability of additional materials
Arrange assessment of outline
Help writers to start writing
Arrange outside assessment for subject content
Check material is ready for editing
Seek copyright permissions
Rough edit and test
Advise writers on revisions
Check unit structure, treatment of subject, activities, study advice
EDIT
Check language and style
Plan format, commission illustrations and design work
Advise writers on revisions
Copy edit and mark up
Get units typed for printing
Get illustrations and design work ready
Read proofs
Check
Get corrections done
Check corrections
Prepare for print, paste in corrections and pictures
Pass to printing
Check copies from printer
Give information on the course to other departments
Keep record of errors and notify students

The Editor's Activities in Course Development

Unit 1 : Appointing writers

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Introduction

An editor may be responsible for any of the following activities, all of which take place before the writer produces any text:

selecting and appointing writers
managing a writing schedule
briefing writers
training writers
helping writers to start work.

These tasks involve three kinds of activities: editing, administration and personal contact with the writer. Unit 1 deals with the first of these topics.

When you have worked through this unit, you should be able to:

* list and evaluate different ways of identifying course writers;
* prepare a job description for a new writer;
* define criteria for selecting writers and choose between them;
* negotiate a contract with a writer.

Some editors will be closely involved in selecting and appointing writers. Others will only have an important role at a later stage. Whatever your role, read the unit right through, but decide how much work to put into it in the light of the requirements of your job.

You may need between 2 and 3 hours to complete the unit. Assignment A at the end of Unit 2 contains work based on both Units 1 and 2.

1. Identifying writers

Some distance-teaching institutions appoint full-time course writers. These may be permanent, on secondment or on a short-term contract for as long as it takes to complete a course, perhaps for one or two years. Full-time writers may have other duties besides writing. They may, for example, be required to mark correspondence assignments, prepare radio scripts, commission outside writers, and edit their materials.

Some institutions appoint part-time writers. Sometimes a university will require its lecturers to write courses for external students in addition to their regular teaching. Such people work part time as course writers, but do so on a permanent basis. In this case, the unit has little or no choice whom to appoint as writers, although it may be possible to use only the more promising and enthusiastic lecturers. Sometimes an institution is free to appoint any suitable applicant as a part-time writer, whether one of its own staff or an outsider. Such writers are commissioned to write only those courses or sections of courses which match their expertise.

Many institutions have a flexible policy towards the appointment of writers, and have a mix of both full-time and part-time writers. Whatever the policy, it is never easy to identify good writers. People who are good class teachers are not necessarily good at writing, and few candidates for a writing job can present you with texts they have already written, to help you choose. So how do you set about finding people who can do the job?

One way of identifying writers is through advertising. An advertisement could be placed in newspapers or magazines that normally carry details of teaching jobs or in a teachers' journal.

Advertising can give you a wide choice of applicants. However, it is seldom, on its own, the best way of finding writers. For one thing, if you need a large number of new part-time writers each year, advertising and the administrative work involved in processing applications will be expensive. For another, people know so little about the job of writing for distance education that suitable candidates often do not realise the job is one they could do. Finally, in many countries the educational establishment is so small that it is not difficult, and often more efficient, to identify writers informally by asking people. You can ask colleagues, other educational contacts, or even friends for suggestions for writers. Ministry of Education subject advisers or inspectors, for example, may be able to suggest the names of exceptionally good teachers, or a senior academic may put you in touch with a promising young lecturer.

So far, I have described this process as though one person, the editor, has to find writers. There are two useful ways of broadening the search. One is to appoint an advisory committee for each subject area or each course. The members of the committee would be drawn mainly from relevant bodies outside your institution. The committee would advise on policy and activity in the subject area. One of its jobs could be to help with the identification of writers. At a later stage of course development it would also provide academic assessment of the materials. The other idea is to appoint a chairperson as the first member of a course team. You can invite someone who is eminent in the field, and would oversee the academic development of the course. He or she would not necessarily write any units, but would have personal contacts and so could help identify writers.

EXERCISE 1

How does your institution set about identifying new writers? Are you satisfied with these methods? Do you have any new ideas? Make a note below of ideas to try out or to discuss with your colleagues.

(10 minutes)

Comment

It is usual to feel anxious in case you appoint the wrong person. Of course, it is impossible to choose good writers all the time, but if you are careful to define the qualities and experience you are looking for, you may make a good choice most of the time. The next sections, therefore, are about narrowing down the field and choosing between writers.

2. Preparing a job description for a writer

When you are seeking a course writer, you will have to describe the sort of person you want, and the work you want the person to do. A written description of the job is useful in three ways:

1. It defines the duties of the writer, and the conditions under which he or she will have to fulfil those duties.

2. It will help applicants to decide whether or not they can do the job, by describing the kinds of experience and qualifications that you are looking for.

3. Once a person is appointed to the job, it will form a basis of agreement over what is to be done.

EXERCISE 2

Imagine you are seeking someone to write a correspondence course on teaching methods for in-service training of unqualified primary school teachers. What experience and qualifications would your ideal candidate have? List your ideas below.

(10 minutes)

Comment

I would look for someone with experience of teaching in a primary school; of training primary teachers, particularly mature trainees; of writing instructional materials; of tutoring by correspondence; and with interest in innovative educational methods. The ideal person would also be familiar with current approaches to the curriculum. I would be more interested in the applicants' experience than in their formal qualifications, although qualifications provide guidance on competence.

Few, if any, applicants would have all these characteristics! I would therefore give priority to a teacher trainer who had, in the past, taught in a primary school. I would also look for a strong interest in teaching mature adults, and a lively attitude towards innovation. That is, I would pay more attention to their teaching experience and potential than to their writing experience, although some writing experience would be desirable. Most important would be a sense of commitment.

2.1 An advertisement

A job description goes into some detail about a job, while an advertisement attempts in a few words to describe the job and the sort of person you are seeking. We will consider each in turn.

EXERCISE 3

The advertisement below is for a course writer on a two-year contract. Read it carefully and analyse the information it contains.

a. Imagine you are considering applying for the job. Does it tell you all you need to know?
b. Imagine you are the employer. Will the advertisement attract the right kind of people?

There is no need to write your answer.

WRITER

People's Extension Centre seeks correspondence course writer(s) for new course on National History. Applicants should have:

a. at least three years experience of teaching the subject, preferably to adults as well as children;
b. experience in writing educational materials;
c. fluent English style.

Further details available from Administrator, PEC. Payment on fee basis. Applications (no forms) showing how the applicant meets the three criteria to PEC within 28 days of the appearance of this advertisement.

(10 minutes)

Comment

The advertisement does not say how much work will be involved, how long the job is for or how much the fee is. However, the Centre has been explicit about the sort of person they are seeking. I can see that the way I write my application will give me an opportunity to show whether I can satisfy the second two requirements.

As an employer, I would be able to use the applications to make a short list, assessing people's writing efficiency and ability from their self-descriptions. I would also feel that anyone who sent in an application late, unless they had a good reason such as illness, would not be reliable in meeting deadlines. But my insistence on 3 years experience of teaching the subject may exclude some good candidates.

An advertisement can only contain bare essentials. The one above, however, could be improved with a few minor amendments.

2.2 A job description

A job description should be fuller than an advertisement, and should contain the following:

1. **Essential qualifications/desirable experience: the description would be on the lines developed in Exercise 2, according to the needs of the course concerned.**

2. **A description of the distance-teaching programme: its syllabus and aims, its components (other media as well as print) and a profile of the students for whom it is intended.**

3. A description of the writer's duties: the number and length of units to be written; the writer's role in course planning; any responsibilities for course revision; any duties other than writing units, such as scriptwriting for radio, preparing model answers, or writing a handbook for tutors.

4. Specification of the time allowed: you may be offering a limited-term contract, or may have a deadline by which writing must be complete.

5. Facilities and personnel available: say whether the writer will have the services of a secretary or typist. The description should make clear the facilities available. Also, he or she needs to know whether there is a course team, or whether the writer is working individually. Details will need to be discussed at the interview.

6. Pay: the pay must, of course, be stated, and it must be made clear on what basis payment will be made (a salary, or fees per unit completed).

Both part-time and full-time writers need job descriptions. You don't need to compose a complete job description for each new employee. Probably you will have available a short description of your organisation and its work which is given to anyone who applies for a job, and you will have a general job description for writers which has gaps to be filled for specific posts or courses. The contract of employment given to new writers will clarify the nature of the work, and this will be dealt with in a later section.

3. Selecting a writer

How do you decide whom to appoint? Conducting an interview is difficult. This section suggests some points to discuss.

1. Writer's background and experience:

a. academic: does she* have a reliable grasp of the subject? Her qualifications may help you decide this. You can also take up her references, and assess her publications, if any, on the subject.

b. teaching: if she has taught only for a short while, you will need to check with referees. If she has been teaching a long time, check that she has made suitable moves during her career to positions of greater responsibility. If not, try to find out why. Is it for a good reason, or because she is not very good and cannot get promotion? Find out how far she is likely to adapt her teaching to her students. If she has only taught children, what ideas does she have about teaching adults?

c. writing: if she has already produced teaching materials, assess and discuss them with her. If not, try to assess potential. Assess her skill in presenting her application. If possible, ask her to prepare a small sample of text. Some organisations ask writers to prepare a sample unit, for a small fee, before making a firm appointment. Another idea is to run a short training workshop for potential writers, and then appoint the best ones (see Unit 2).

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* In this manual, writers will usually be referred to as 'she' and others as 'he'.

d. distance education: you need to find out how far the writer is likely to understand the needs and difficulties of distance learners. Some people will have taught at a distance before and these are clearly strong candidates for the job. Some people will have studied by correspondence themselves, others will have tried some kind of independent study from books or the radio.

2. Reliability: it is essential to appoint someone who is likely to keep to schedules. Does she seem businesslike and efficient?

3. Expectations:

a. Is she applying because she thinks it is any easy job? Tell her that the job is demanding, and observe how she reacts.

b. Is she prepared to undergo training and accept criticism? Explain that drafts will be assessed and rewriting will be necessary and observe how she reacts.

4. Time available (for part-time writers): give a rough estimate of the writing time, and ask her to describe how it will fit in with other commitments. Discuss together whether the writing remains a realistic proposition.

5. Accessibility (for part-time writers): if there are to be course-team meetings, will she be able to attend? Or will travel be too difficult, or costly?

These guidelines will help you to prepare a list of questions to ask at an interview. Before an interview, all those interviewing should have a briefing meeting and agree on a list of questions to ask all applicants. At least two people, such as the head of department and senior editor, should conduct the interviews. An interviewing panel could also include one or two other people, such as subject specialists from the advisory committee, but should not be so big that it inhibits the candidates. Three is an ideal size and five the maximum.

EXERCISE 4

Imagine you want to appoint a part-time writer of a correspondence course in mathematics for adults. The students will take the exam usually taken by schoolchildren at the end of secondary school. Below you will find brief descriptions of four applicants. Whom would you appoint?

Mrs A: a foreign businessman's wife, who expects to remain in the country for three years more. She has been here a year already and during that year worked as a part-time volunteer teaching English language to adults in evening classes. She prepared some work cards for these classes, and has sent them in with her application. You think they show she has promise as a writer. Before she came abroad she taught maths in a secondary school for 10 years, and marked public examination papers on three occasions. At present she has no paid employment, and lives in the capital near your headquarters.

Dr B: a practising secondary teacher for 30 years. For twenty years he has been deputy head of a large school. Most of his work is administrative, but he teaches some examination classes. He also spent three years some time ago lecturing in a teacher-training college; this was his only experience teaching adults. He wrote a textbook on maths for secondary pupils ten years ago and it is now in its 7th printing. He is due to retire in a year, and wants to write this course so he can keep in touch. He lives in a suburb half-an-hour's drive from your office.

Mr C: a young man, who has been teaching maths for four years in a secondary school in a remote rural town. His headmaster describes him as a dynamic teacher, full of ideas, and is very pleased with pupils' exam results. He has no writing experience, and his application was clearly completed in rather a hurry. His interest in writing the course comes from his voluntary work in a local youth group, and his growing awareness of the employment difficulties faced by unqualified young people.

Miss D: has taught maths in a rural secondary school for seven years. A year ago she had to leave her job to look after an ailing parent in the capital. At present she has no paid job, and is supported by relatives. She has an excellent reference from her former head. She has no writing experience, and no experience teaching adults, but in order to upgrade her teaching qualification to a degree, she is currently studying a correspondence course, and has made some perceptive comments on it. She misses teaching, and wants to write the course in order to keep in touch.

Write your choice below, giving reasons:

(15 minutes)

Comment

I will discuss each applicant in turn. First, Mrs A. She has plenty of teaching experience, some writing experience, and some experience of adult education. She also has plenty of time, and appears to have no need of a full-time job for the money. There are two major drawbacks: first, she is a foreigner, has spent only a little time in the country and has no first-hand experience of the educational system; second, it is just possible that she might be recalled to her country suddenly, perhaps if a close relative is ill or her husband's business collapses.

Dr B has experience in his favour. It is possible, however, that he will have difficulty in adapting his thinking and writing to the needs of adult students. It is also unlikely that he will be able to pay much attention to his writing until his retirement starts, in a year's time.

Mr C is relatively inexperienced, but sounds a lively and interesting person. His hasty application unfortunately gives no clue as to his writing potential, but it will be worth seeking some further evidence on

this. It is a disadvantage that he works in such a remote place.

Miss D has good teaching experience, but no writing experience and no experience teaching adults. Her attitude towards the job is, however, promising, and she appears to be reliable and enthusiastic. She has practical experience of using distance materials, and has some ideas about writing as a result. She has sufficient time at the moment, but if she had the opportunity to return to full-time teaching she would probably do so.

It is difficult to decide which applicant is best. All are clearly possible. I think my order of priority would be as follows:

1. Miss D. She has the right kind of commitment and a willingness to take on a challenge. Even if she did return to full-time work, I think she would complete her writing. I think she would produce a competent course, although perhaps not exceptionally good.

2. Mr C. He presents himself as imaginative and enthusiastic. I would like him to produce some sample material before making a final decision. His units may need a lot of editing, but the work may be worth it, if he writes with the sparkle he clearly brings to his classes.

3. Mrs A. I'm unhappy about her lack of local experience. If she had a local co-writer, she would be ideal.

4. Dr B. The writing must start before Dr B's retirement. In any case, can he adapt to distance education? Although he is a successful textbook writer, he has been in school for 30 years. It is difficult to change after so long. If someone who knows him well can convince me he is adaptable, I will appoint him. Otherwise, it is a risk.

I certainly could not make up my mind before interviewing all the candidates.

4. Negotiating a contract

Once the offer of a job has been made and accepted, the employer and writer have to reach a precise agreement on what is expected of each. Such an agreement is normally formalised in a contract of employment.

Your institution probably has a standard contract for writers. If not, the example below may help you to develop one. Contracts are usually modelled on those used by book publishers, but adapted to suit an educational institution. You need to examine the contract used in your institution, so that you are sure of the rights and duties of both parties.

EXERCISE 5

Here, as an example, is a contract used in England for a part-time writer. As you read it, try to work out what rights are given to the writer and what to the institution. Try not to be put off by the formal legal language. There is no need to write anything; just read the contract and my comments carefully.

(15 minutes)

AN AGREEMENT date 19

made between the (the college) of (address)

and (the Author) of (address)

WHEREBY IT IS AGREED as follows:-

1. The Author shall write a course (defined in the Schedule) and shall deliver the typescript to the College on or before the day of 19

2. The Author hereby warrants that he/she has not granted any licences or rights in respect of the course unit to any person company or firm and that he/she is the owner of the copyright of any illustrations or material in any medium provided in accordance with this agreement.

3. In consideration of the sum of £ ..... to be paid by the College to the Author after approval of the completed typescript by the College the Author assigns to the College the copyright in the course units for all purposes.

The contract starts with the date, and the names of those agreeing. A separate contract needs to be signed by each writer, if there are several.

Clause 1 A full description of the writing job is given in the Schedule at the end. The writer is specifically asked to deliver typed material, and the deadline for delivery is given.

Clause 2 This asks the writer to affirm that he or she has not given permission for anyone else to use the material, and has not used anyone else's material. This means that if the institution comes across the material published elsewhere, they can accuse the publisher of infringing copyright. If, on the other hand, the writer is dishonest and 'borrows' large amounts of material from another publication, then the institution can say that the writer is responsible and the institution published the material in good faith.

Clause 3 specifies the fee and says it will only be paid after the typescript has been approved (not just received). Once it is approved, the copyright belongs to the institution.

4. The Author shall not publish or license the publication in any form of the course units or any of them or any part of them after they have been approved by the College in accordance with Clause 3.	Clause 4 complements clause 2 and covers copyright after approval of the writing.
5. The College or such other person as may be authorised by the College may make such alterations to the course units by way of editing punctuation spelling abbreviation grammar or otherwise as the College or such person in his discretion shall think fit.	Clause 5 allows the editor or anyone else appointed by the College to change the text, without necessarily having the writer's approval.
6. The Author shall at no expense to the College on receipt from the College of the proofs of the course units check the proofs for errors or omissions and shall return them to the College within days signed.	Clause 6 asks the author to check proofs for no extra fee, and implies that if the proofs are not returned by a given date, the writer will have no right to complain about errors.
7. The Author will at the request of the College and at his own expense make such changes or corrections in the course unit as the College may require PROVIDED that such request is made within a period of 12 months from the acceptance of the course unit by the College.	Clause 7 says that the writer must revise the units as necessary, and for no extra fee, provided the request is made within a year after the acceptance of the units.

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8. The College will at its own cost reproduce circulate and distribute the course.

Clause 8 says the institution will pay for printing and distribution, but the clause does not oblige the institution to go ahead with printing. It only says it will pay if it does print.

9. The College will bear the reasonable travelling and subsistence expenses in respect of any journeys undertaken by the Author at the request of the College.

Clause 9 says that expenses are only paid if the institution has approved the journey in in advance.

10. No fee shall be payable whether by way of quantum meruit or otherwise in respect of any course units delivered after the date stated in paragraph 1.

Clause 10 says if you are late with your units, you do not get paid.

THE SCHEDULE

Subject matter:

Number and description of units:

Illustrations:

Students' work assignments:

Other teaching aids:

The schedule is filled in to include all the material the writer must provide. This contract wrongly omits a heading for work on course planning and outline.

Signed .....
for .....(College)
Date .....
Signed (writer) .....
Date .....

12

24

Comment

From the institution's point of view this contract is useful. It protects the institution against some of the things that can go wrong. For example, if a writer does not produce the course by the given date, you are free to appoint someone else. In practice, it is usually more satisfactory to arrange the schedule so that units are due in batches, and payment made on acceptance of each batch. Sometimes a writer completes units, but they are too bad to be accepted. In this case the institution has no obligation to pay, although in practice a college and writer may agree on a nominal payment for unsuitable work. Clause 5 allows the institution to amend a text if the writer is unwilling to do it.

On questions of legal responsibility for the content of the text, the contract is rather obscure. If the writer misled the institution about copyright material, the institution, as publisher, would still be held responsible in a law court. In addition, nothing is said about libel and other forms of misrepresentation.

From the writer's point of view this is not a very satisfactory contract. A contract is meant to provide a framework for an agreement, and both sides can negotiate modifications. But this contract gives the impression the employer does not trust the writer at all. Notice, first, that the writer only gets one fee, however often the course is reprinted, however many copies are sold. A royalty provision, that is a percentage payment on each copy over a certain number, would improve matters. Then clause 10 is very severe, especially if you read it together with clause 3, on approval. There is no indication of the procedure used for approval, nor of how long it takes. Suppose I sign a contract on January 1st 1985, and I deliver my units on the agreed date, January 1st 1986. I then discover that the units have to be assessed by certain committees for approval, and that will take 6 months. I am eventually paid on July 1st 1986, and I now realise that the institution has a right to ask me to change the units up to July 1st 1987. Meanwhile, under clause 6, the institution can make any changes it likes to what I have written.

This is a poor deal for the writer and the conditions need relaxing a little. There also needs to be a clause which describes what happens in the case of disputes. As things stand, the writer is at the mercy of the employer.

Clause 8 is also unnecessarily favourable to the institution. There needs to be some aid for the writer if the college decides not to publish. For example, the contract could allow the writer to buy back the copyright, if the institution does not publish within a certain time.

Finally, clause 9 only covers travelling expenses. It should also at least cover postage and telephone, and might also include stationery and typing expenses. The clause could simply be broadened with the phrase "and such other expenses as shall be agreed".

We can see now the importance of the form a contract takes, and the difficulty of writing a satisfactory contract. An institution must guard against having to pay for unsatisfactory work, and the writer needs protection too.

EXERCISE 6

What issues are important for your writers or your institution? Jot down a list. Payment, copyright and time limits are bound to be on your list. Then go through your institution's standard contract for writers, or reread the one in this unit, and consider how far it deals with the points on your list.

(20 minutes)

Summary

This unit has considered the selection and appointment of writers. I have suggested that you should, where necessary:

- evaluate the methods used for identifying writers
- define the qualities and skilled needed in each case
- consider criteria for choosing between writers
- evaluate a contract as a means of controlling and protecting both employer and writer

The next unit is concerned mainly with training writers.

Unit 2: Preparing to write

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Introduction

This unit discusses the editor's role in:

managing a writing schedule
briefing writers
training writers
helping writers to start work.

The activities described in this unit may take place over the same period as course planning, covered in Unit 3.

When you have worked through this unit, you should be able to:

* set up records;
* set a writing schedule;
* brief a writer on the schedule;
* organise training for a writer;
* appreciate the importance of establishing a good relationship with a writer;
* describe how to persuade a writer to start writing.

As with Unit 1, some editors will be closely involved in these preparatory stages. Everyone should find it useful to read the unit right through, although some readers may not need to complete the exercises.

You may need about 2 hours to work through the unit, and a further hour or two to complete Assignment A.

1. Keeping records

Once a contract is signed, a course will begin to take shape. This is an appropriate time to discuss filing. Everything to do with each course must be filed accessibly. As the course develops, others besides the editor may need to use the files or want questions answered - the finance department, tutorial advisors, or student advisers. Usually, institutions give each course a reference number, and this is used for filing all material on the course. The file, however, will need many subdivisions, such as correspondence with writers, course outlines, schedules, information on supplementary materials such as textbooks and copyright letters. Some of the material, such as drafts of the units - and there will be two or three of these, will be very bulky and unsuitable for filing in standard office cabinets. Set up a comprehensive system from the beginning so that you do not have to spend time sorting out a muddle later on. Open a subfile for each topic or kind of correspondence, and designate a suitable large area of shelving for the draft course materials. It will help considerably later on if all material is in good order and easy to find.

2. Writing a schedule

One of the first subfiles you open will be on production schedules. A schedule tells you when each unit should be ready for each stage of the production process. There is an example on the next page.

You have to work out a tentative outline schedule before you brief the writer on his or her schedule. The schedule in the example shows the material is due from the writer in 3 batches, February 1, March 15 and May 1. You ought to have some idea of the schedule before agreeing on a deadline with a writer, but this is not always possible as the date may have to be accommodated to the writer's circumstances.

You work out a rough schedule by working backwards, if you already have a target date for sending the course to students. In the sample schedule, the course is due to go to students on December 1. You need an approximation of the total number of pages and the number of course volumes, and then you estimate, or get estimates from the relevant departments, the time needed for each process:

printing, binding
design, typing, proof reading, correcting
copy editing
illustrating
editing
rewriting
assessment
writing
preparing course outline
briefing/training writers

If the course is being produced in several volumes, you can make a table and fill in dates for each batch.

It is better to fill in the times backwards, because operations like printing and typing are more predictable in their timing. You can calculate, for example, that typing a certain number of pages will take a minimum number of days. You will then have to fit the less predictable jobs like rewriting into the remaining time available.

PEOPLES EDUCATION CENTRE
COURSE SCHEDULE

Course title: Childcare..... Code: C.H.S...

Number of units: ....12.....

Writers: .Mrs. Rosamunda...Mccabe...and.....

.....Doctor..Freda..Burn.....

Arrangements for briefing: Meeting with editor 31 October (½ day)

Course outline due: .....November 30.....

	Dates due		
	Batch 1	Batch 2	Batch 3
	Units 1-4	Units 5-8	Units 9-12
Written	February 1	March 15	May 1
Assessed	March 1	April 15	June 1
Edited	March 15	May 1	June 15
Rewritten	May 1	May 15	August 1
Illustrated	July 1	July 15	September 1
Copy edited	July 1	July 15	September 1
Typeset	July 15	August 1	September 15
Proof-read	August 1	August 15	October 1
Corrected	August 15	September 1	October 15
Made-up	September 15	November 1	December 15
Printed and bound	November 15	January 1	February 15

As you make your estimates, always allow more time than the minimum. If the printer tells you the jobs will take 3 weeks, write down 4 weeks. If you usually take a day to edit a unit, write down a day and a half. Generous estimates will make room for delays and miscalculations that are inevitable.

If you cannot fit all the steps into the time available, you may still be able to complete the course in time. First, see if the publication deadline can be changed. If not, consider rescheduling production into smaller batches; for example, it may be possible to get each unit approved separately as it is written, so it can go straight into production. There are also other measures to take in an emergency, such as employing extra typists so that several can work on a course at once and get it done very fast. Such emergency measures are costly. If the schedule looks unworkable, warn colleagues and try to find a way of avoiding crisis.

EXERCISE 1

This exercise requires a little research work. If you are new to editing, it will probably come as a shock to discover the length of the course production process. Choose a course that your institution has recently produced and, copying the list of processes in the sample course schedule, fill in as many dates as you can between the date the writers started work and the date the last unit was printed. If your institution has not yet produced any materials try to get the information from another local establishment, such as a local publisher.

(about 1 hour)

Comment

Everyone will have schedules with a different time-distribution. Timing depends a great deal on whether you have internal facilities for various processes or must use outsiders and fit in with their schedules. It also depends to some extent on the type of production facilities you use. Generally, anyone who can produce any distance-learning material within a year is working very fast, while two years is a reasonable average development and production time for one year's part-time study materials for adults. Suppose, for example, you are developing a lengthy course for two years of correspondence study, you would probably have the first half ready at the end of two years, and the rest after another year. The overall planning, development of outline, and developing the first, sample material could take a year. The development and production of each half of the course could then take a further year. The sample schedule we looked at earlier in the unit, showed about 13 months from the briefing meeting with the writer to the printing of the first batch, and a further 3 months till the course (a short one) is complete.

3. Briefing the writer on the schedule

New writers often have little idea of what is involved in production, and a short explanation will help them accept the deadline, and open up discussions on how they can submit a steady flow of material. Explain the constraints imposed by a schedule, and emphasise that the dates given are not arbitrary, but the last possible dates for getting material ready for the students.

You will also have to explain the process your institution uses for approving materials, including academic vetting and trial runs. Explain what you as an editor will be doing, introduce the writer to the idea of rewriting drafts, and discuss how you will best be able to work in partnership.

At an initial briefing, you must bring up three other matters. First, ask the writer what resources she needs. You may be able to help by providing some textbooks which she will need as resource material, or some samples of distance-learning materials in a related subject. Second, ask whether she is planning to base the material on a textbook which all students must have, or provide a kit, or any other supplementary material, or include any copyright material in the course. You have to check immediately whether such accompanying materials are available for use, before she has got too far ahead with the units. Finally, you must ask her if there are any problems. A common one is typing facilities; a writer may be uncertain

how to manage the typing, and you may be able to help with arrangements.

EXERCISE 2

You meet a newly appointed writer who assures you that she will complete the writing in four weeks and does not appear to be listening seriously to what you say. What would you do? Think about this for a few moments before you read on.

(3 minutes)

Comment

This writer does not understand the complexity of the job. You have a difficult situation to deal with, but you must not accept the proposal that everything will be completed so rapidly. Persuade the writer to send you a draft of the first section of the text, and write no more until she has received comments on this draft. You could also send the writer a written record of all the points raised in the discussion, in case she really was not listening.

4. Training writers

All those new to writing for distance education need some sort of training. The nature and extent of that training depends largely on two factors: first, the writer's background and, second, the facilities (personnel, finance, and so on) that your institution has access to. Your decisions on training will also be affected by the amount of work a person is to do for you; you cannot offer an extensive training programme to someone who is commissioned to write only a short unit.

There is no room here to describe in detail the content of a training programme for writers. You can follow this up by studying for yourself the companion volume to this manual, Writing for Distance Education. My article* reproduced below defines the essential minimum for training, and discusses some methods.

Tell me how to write

The variety of attitudes and experience course writers bring to their task requires a flexible training program

Course writers today demand training. Gone are the days when the novice writer could confidently set about the task of writing with only minimal guidance. Gone are the days of experiment, when the enthusiastic writer would, unaided, become aware of the problems of teaching by correspondence and creatively adapt his or her classroom techniques to teaching at a distance. Gone are the days when the

* From Learning at a Distance: a world perspective, the proceedings of the International Council for Correspondence Education 1982 conference, edited by J S Daniel, M A Stroud and J R Thompson (Edmonton: Athabasca University/ICCE 1982, pp.227-229)

intervention of an editor or educational technologist was considered a wrongful intrusion into the preserve of the teacher.

Ten or more years ago, at least in my experience then at the National Extension College, writers did not expect to be trained. With better writers this was not a problem. They would produce good lesson drafts to start with, and tended to welcome discussion of their work. With weaker writers, the only acceptable form of training was tactful suggestion and quite often, such advice was not followed.

This experience was, I suspect, typical in any country where people were only just beginning to take distance teaching seriously. That time is now past. Today, distance teaching is an acceptable form of education. Those without experience do not attempt to struggle alone. They look to institutions or people with experience to provide advice and training.

How does a new writer feel?

First, there are the confident writers: "Just tell me all about the techniques I need and I'll have no trouble in applying them." They assume there are a few simple rules to be learned. They are shocked and surprised when they are presented with a challenge to their assumptions about teaching. They are forced to rethink how they should present their subject. This process contains an implicit questioning of the effectiveness of all their teaching. What they want is a quick guide to the theory and practice of distance teaching. What they need is to learn to think very carefully about what they teach and how they do it.

Any good teacher is, of course, prepared to do this. The shock to the course writer comes because a mystique has built up around the idea of distance teaching. Writers expect, and look for, a new kind of challenge. They discover instead that the major requirement is a familiar one, the hard slog of teaching to a high standard; and, worse, their teaching no longer takes place in the privacy of the classroom or lecture hall, but is open to the scrutiny of their peers and a variety of course development personnel. Their initial confidence is often severely shaken. Their training must, indeed, bring about this disruption, but it must also go on to restore confidence.

Second, there are writers who lack confidence: "I've never done any writing and I'm worried about it." The ones who admit to this worry are easy to help, with encouragement and constructive criticism. The difficult ones - and there are plenty of them - are those who don't like to acknowledge that they are worried. If a college provides only informal training, the problem may come to light when the deadline for submitting lessons arrives, and nothing has been written.

Third, there are those who resist training. There are still a few who believe it is quite unnecessary. If you've ever attended a writer's workshop, you may have met the sulky-faced person who sleeps ostentatiously in the back row. Others pay lip-service: "Give me the right books, I'll read them and get on with it." They are nevertheless determined to do things their own way. Sometimes, with patience and luck, they become more receptive; in other cases, the production of a course becomes a stormy and unpleasant experience for all involved.

There are, of course, other attitudes, but these three are typical and each presents training difficulties. The problem for the trainer is to build on the writer's initial receptivity; and to do so without destroying enthusiasm. In those cases where the writer has a negative attitude, the trainer has to attempt to break through the barrier.

What kind of training?

I have dwelt on the question of attitudes because I believe it crucially affects the content and conduct of training. Institutions can only provide limited training, and a training programme should therefore be designed to train writers in essentials. Opportunities for training may be limited for many practical reasons; a course may be needed in a hurry, money may be short, or trainers may be unavailable. But perhaps the most serious constraint is the one imposed by the writers themselves: they are seldom prepared to devote much time to training.

However, we must accept that, particularly for part-time writers, time is important. People want to get on with the job. This implies that a training programme should be efficient and selective. Our objective should be pragmatic rather than perfectionist: that is, to train writers to be competent. And the training needs to be built round the writers' experience and to take into account their attitudes.

A minimum curriculum for training

A typical new course writer has considerable experience of teaching in class but will know little about distance education, and have little or no experience of writing. For such people, a minimum curriculum should cover the following 6 topics:

1. What it is like to learn at a distance. In particular, the writer must consider the study environment, motivation and the needs of the group of students he is to teach.

2. Planning and writing by objectives. Most teachers have only a vague notion of objectives and their use. They need to clarify their ideas and, in particular, learn to write precise objectives.

3. Relating activities to objectives. The next step after writing objectives is to provide activities to test that they have been achieved. This is not obvious to those who are unfamiliar with teaching by objectives.

4. Providing constant feedback. Teachers need to learn to translate into print the normal classroom interaction. They need to be shown why frequent self-assessment questions are necessary, and need guidance on devising a variety of such questions.

5. Writing clearly. First attempts at writing are often unnecessarily heavy and complex. Writers need to learn to write simply and clearly. They also need to learn to write thorough but clear instructions.

6. How the course will work. Writers, particularly external ones, cannot be expected to understand the administration of a course. They need to know exactly what kind of support services are available to students, and how they operate. In particular, they need to understand how best to use a tutor's assessment skills, if a tutor is provided.

In addition to these six essentials, training should include some writing, either part of the writer's actual course or a lesson written as an exercise. The temptation to cover more topics must be resisted, if as a result writing is postponed. Any delay in starting to write increases the fears of writers with little confidence. Others immediately see the relevance of their subsequent training, as they can apply what they learn directly to their own drafts. They learn, too, that a writer must be prepared to redraft his work several times. The International Extension College has produced a training manual, Writing for Distance Education (1979), which starts by asking people to use some given information to write a few pages. Only then does it begin to look at techniques. We have used the manual in several workshops and find it is effective in helping all writers, even reluctant ones, develop their competence.

There is also the problem of time. Writers need to feel they are achieving something, and doing so quickly. It is tempting to introduce more topics into a training programme, but if time is limited, training should be kept to the basics and to helping writers get started.

How can we train writers?

A number of training methods can be used to suit different circumstances.

Teaching by correspondence

Some years ago the International Extension College produced a correspondence course for correspondence course writers. It consisted of nine units, some of which were related to teaching particular subjects at a distance. It proved less than satisfactory. The problem was time. Although people began to write their courses as they worked through the units, they wanted to proceed faster than the course allowed. The delay while assignments were marked and returned was, for most, a severe handicap. This method of training has its uses, and other institutions may have found it more satisfactory; but I prefer other methods.

Self-tuition

There are now a number of training manuals available. It is difficult to assess their effectiveness, as feedback from users is lacking. My impression is that they are much better than nothing, but are more effective if used with some tutorial support, such as occasional seminars or a trainer who will answer queries. One institution, which asked its writers to use the International Extension College manual on their own, found that the trainees needed an opportunity to discuss their work.

Workshops

In my experience, intensive training and writing workshops are the best form of training. In a workshop of 2 or 3 weeks, trainee writers both learn the job and produce some finished lessons. Training manuals come into their own, forming the basis for seminars. Writers get feedback from trainers and other writers, which builds their confidence. Even a workshop of 1 week can be satisfactory, especially if it is followed by support from an editor.

In-service training

This is the best term to describe training which involves an editor and a writer working closely together. Such training can be individualised, and can take place face-to-face and by correspondence. Training manuals can be used, on the advice of the editor. This method has many advantages: in particular, the problems of teaching specific subjects at a distance can be closely examined. However, there is a risk that it will not be systematic enough, and writers will lack the benefits gained from group work in a workshop.

Given the choice, I would prefer to train writers in workshops. But, clearly, different methods are appropriate in different cases. Whatever the method, it is important to give writers the satisfaction of achieving results soon. And this means that a writer needs to get at least one lesson written quite quickly. Once a writer has written a lesson or section and revised it, or knows how to do so, he should be able to continue with confidence. Formal training can stop here, to be supplemented with informal advice.

Conclusions

This paper has looked at the sort of training writers require, what that training should include, and different training methods. I've suggested that, since training must be selective, training programmes should be designed to take into account writers' attitudes. Dominant attitudes today are largely due to the mystique that has grown round the concept of distance teaching. Writers are misled into thinking either that the whole business is very difficult, or that there is a simple system which will provide them with infallible guidance. I've suggested that, to overcome these difficulties, actual writing of lessons should form part of a training programme.

EXERCISE 3

Imagine that you are training a new writer, and you have asked her to prepare a sample unit. How could you use the unit to help with the training? Think about this for a few moments before you read on.

(3 minutes)

Comment

First, you will use the sample to help the writer assess and develop her skills of writing for distance education. The sample will show you what the writer can already do well, and whether she needs to develop further expertise. Your knowledge of the writer's background will help you in making this assessment. You might, for example, note that an experienced secondary science teacher is very good at describing examples from everyday life, but has selected ones more suitable for adolescents than for adults. A writer might offer clear explanations but in a literary style, and you could draw attention to this and suggest that she try to shift to a more informal style, closer to speech. Some points you would pick out for immediate attention, to reinforce the writer in the approach she is taking, or to suggest another direction. At first, you would only

express major criticisms, and do so constructively. You would reserve comments on other less important points until later, so that the writer is not overwhelmed with suggestions.

Second, use the sample to build up the writer's confidence. A few comments that pick out qualities as well as faults help give confidence to continue. The sample writing can serve as an appetiser to set the writer going.

A third function of the sample is to help writer and editor get to know each other and begin to understand each other's way of working. This can be useful later, when large sections of material are ready for editing, and misunderstandings can easily arise.

EXERCISE 4

In what circumstances would you urge your institution to organise a writers' training workshop?

(10 minutes)

Comment

Workshops are quite expensive. I would give high priority to a workshop in any of the following circumstances: a number of new writers are appointed within a period of a few weeks; an evaluation of your institution suggests there are serious shortcomings in existing course units, and you want to make a fresh start; you feel that your workload is impossible and you keep saying the same thing to writer after writer; an unexpected opportunity presents itself, such as a national adult education conference, which a number of your writers will be attending who can be invited to a brief training seminar at little extra cost; or you have a problem finding writers for a new scheme and want to identify them through an induction workshop.

5. Establishing a good relationship

An editor has to work with a writer over a long period. You have to get the writer to trust you and take you seriously. Sometimes this is easy; editor and writer find they naturally get on very well. At other times there can be difficulties, particularly when an academic is bewildered at

the idea that someone is going to 'interfere' with his or her writing. How can you deal with such difficulties?

Start by observing the ways different writers react. Some are irritated by frequent reminders of deadlines, other depend on them. Some prefer a friendly editor who takes a personal interest in their work, others prefer an impersonal approach. You will find that it is impossible to act in exactly the same way with each writer. You have to try to get to know each individual.

You will get angry sometimes. You may put a lot of effort into suggesting amendments to one unit, and expect the writer to take these into account in writing the next one. Then the next unit arrives, just as bad as the last. You are disappointed and furious. You have to be prepared to keep your feelings private, cool off, and then approach the problem calmly.

To work well with a writer, you must have a friendly relationship in a business context, and you are not at liberty to lose your temper and clear the air with colleagues as you would in out-of-work personal relationships.

Sometimes it is tempting to do nothing. When you receive an unsatisfactory unit, or a phone call from a writer saying the next unit will be 6 months late, or any other disaster lands on your desk, you may want to hide the problem away for as long as possible. But it is better to be decisive. The best way to deal with this is to talk the problem over with colleagues immediately, get their advice on what to do, and do it.

6. Getting the writer started

Once a writer is appointed and trained, you have to help him or her to get started. This may be very difficult.

Some writers need no persuasion. An extreme case is the writer who rushes ahead without waiting for assessment of the first units. Others, when the moment arrives to put pen to paper, cannot do it - a normal reaction to the task of writing, as all of us know from our schooldays. The prospect of writing for an unknown audience of students can be daunting. But usually writers are reluctant to acknowledge, even to themselves, that they are worried. An editor has to watch for the first signs of a writing block; a deadline slips a little, a writer keeps requesting more information of various kinds, or claims to be still busy with background reading. You have to, somehow, cajole the writer into making a start, even just a page or two. Longer delays will lead to greater panic.

Various strategies for helping a writer to start have already been suggested: discussing the schedule and breaking it up into segments, training programmes, preliminary sample units. Emphasise that the course is a joint enterprise, between writer, editor, and any other members of a course team. People feel less vulnerable if they feel they belong to a group.

Once a writer has a block, it can be extraordinarily difficult to get going. Weeks slip away. Never leave a writer with a block to get over it alone, but do all you can to help her to get started again quickly.

Summary

This unit has considered preparations for writing, including training

writers. I have suggested that you should, where necessary:

- develop a suitable course filing system
- devise a method for course scheduling
- select suitable methods of briefing and training writers
- consider how to develop a good working relationship with a writer
- consider strategies for helping a writer to get started

ASSIGNMENT A

Units 1 and 2 had a number of objectives concerned with working with writers. Each of these objectives has now been discussed, and it is time to draw together ideas. The assignment below suggests an informal way of doing this. Before you start, look through the units again. As you do so, remember the triple role of the editor: professional, administrative and personal adviser. You may think that I have given the editor more of a managerial role than is practicable in your institution. If this is so, consider this description of distance teaching:

> 'The management of the learning process requires the creation of a complex and interdependent system which needs constant administrative attention and teamwork.'*

I have tried to show how the editor must be a member of a team, rather than the servant of a system. You may wish to add your own suggestions on the role of the editor alongside your other comments below.

Below is a list of the 10 subheadings in the two units. For <u>each</u> heading:

1. Describe what happens now in your institution.
2. Make at least one suggestion for modification and improvement.
3. Discuss your suggestions with a colleague, if possible an experienced course writer.

The object of the exercise is to find out more about your own institution and the writers who work for it.

Here is the list:

1. Identifying writers
2. Preparing a job description
3. Selecting a writer
4. Negotiating a contract
5. Keeping records
6. Writing a schedule
7. Briefing the writer on the schedule
8. Training writers
9. Establishing a good relationship
10. Getting a writer started

* B L Snowden and J S Daniel, 'The Economics and management of small post-secondary distance education systems', <u>Distance Education</u> 1,1 (1980) pp. 68-91

You have already collected some of the information you need for this assignment. You will probably need another hour to gather the rest and sort out your ideas. Allow about 30 minutes discussion with a colleague.

Unit 3 : Developing a course outline

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Introduction

A writer's first job will usually be to develop a course outline. Often, course planning is still at an early stage when a writer is appointed, and much work will have to be done before writing starts. Editor and writers should work closely together. How can you advise a writer on developing an outline? This unit will help you to do this.

When you have completed the unit, you should be able to:

* list and describe the stages in planning an outline;
* describe different methods for developing an outline;
* define the likely roles of an editor in planning the outline;
* brief and advise a writer on developing an outline.

This unit does not attempt to train you in developing an outline yourself, but it will guide you on working with others. You will need about 2 hours to work through the unit. Assignment B is an important project, and you should be prepared to spend several hours on it.

1. What is a course outline?

A course outline is a document which serves as a guideline for all those involved in course development. It will normally state:

- the course title
- who it is for
- aims and objectives
- the course contents
- how it will be taught (including media used)
- how it will be assessed
- how long it will take

A course outline is therefore considerably more than a syllabus or list of lesson titles.

Example 1 shows a course outline for a correspondence course developed by the Zambian Co-operative College. A team of five people prepared this document before they started writing.

> **EXERCISE 1**
>
> Study the outline again and check that each of the seven points mentioned earlier is covered. Do you have any comments on the outline? Note them below.
>
> (10 minutes)

Comment

The outline is on the whole simple and clear. Note that since it is a correspondence course (that is, printed lessons), the heading 'Other teaching strategies' describes support materials such as audio-tapes. In this case, the writers have been cautious, as they are unsure about resources. On the other hand they want to arrange a residential course, perhaps rather a long one for such a short correspondence course. An editor would want to discuss this proposal with the writers.

The final heading, 'Resource Material', needs some comment. The writers agree that they will all use the same book for reference and ideas for their writing, and they have noted it here as a reminder.

COURSE OUTLINE

Basic business calculations for co-operatives

Target Group:

Salesmen and ladies both in primary societies and Provincial Unions' consumer shops, boards of directors of primary societies, depot supervisors and other interested persons not necessarily operating within the co-operative movement.
Minimum academic qualifications : Grade VIII

Aims and Objectives:

(i) To enable participants to work out simple business calculations as a basis for decision making
(ii) To enable participants to collect and present data for management decisions in the daily business operations

Lesson Titles:

Lesson 1 : Basic addition, subtraction, multiplication and division
Lesson 2 : Fractions and decimals
Lesson 3 : (i) Rounding-off of figures
(ii) Rough estimates and averages
Lesson 4 : Basic percentages
(i) Introduction to percentages
(ii) Percentage changes
Lesson 5 : Mark up and margin
Lesson 6 : Discounts and interest and member's bonus
Lesson 7 : Areas and volumes

Assessment:

(i) Out of 7 lessons there will be 6 assignments. The first assignment will consist of questions from lessons 1 and 2
(ii) Assignments will be part of the continuous assessment
(iii) Assignments will be sent after every lesson except for lesson 1
(iv) Multiple choice questions will be included but to a lesser extent
(v) There will be an exam at the end of lesson 7 and it will cover all the lessons

Other Teaching Strategies:

(i) Other teaching strategies will be added should resources allow
(ii) A residential course for a few days, will be considered

Study Time:

(i) Each lesson will require 5 to 6 hours of study time
(ii) Duration of the course will be six months

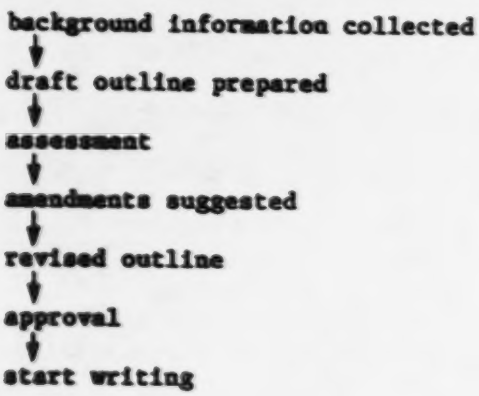
Resource Material:

The main source will be the booklet produced by the Co-operative College on Basic Business Calculations.

EXAMPLE 1: Course outline for correspondence course 'Basic Business Calculations for Co-operatives', Zambian Co-operative College, Lusaka, Zambia

2. Stages in developing an outline

Example 1 showed what is, strictly speaking, a draft outline. The diagram below shows the stages of developing an outline.



The first three stages will be discussed in some detail below. But first, let us consider who works on the outline.

3. Who prepares the outline?

It is important that at least one subject specialist is involved in developing an outline. Apart from that, it could be a group of writers, a mixed group of writers and editors, or a course team chairman. Usually an editor will advise on background information, but may be more centrally involved as well.

At this point, let us consider the idea of a course team. When the Open University of Great Britain starts planning a new course, it creates a team of writers, editors, educational technologists and broadcasters, all of whom develop the course together. In practice, an individual may work on one bit of a course, while a small group may work on another bit. The team as a whole, however, has responsibility for the final product and must plan their work as a group.

Several other institutions have a team approach to writing, while others will only have one writer for each course. However at the course planning stage, team work of some kind is desirable. It may be a team of two, writer and editor, or team work between writer and a temporary advisory group. For assessment (see section 6) some sort of advisory group is essential.

4. Collecting preliminary information

In order to prepare a draft outline, some preliminary information is needed. It is often the editor's responsibility to collect this information, and the next exercise asks you to think about this.

EXERCISE 2

You want a writer to prepare an outline for a correspondence course on programming a microcomputer to go with a twelve-week television series (one broadcast a week). What information must you get in order to brief the writer? (You do not need to know anything about computing to complete this exercise.)

(10 minutes)

Comment

First, obviously, the writer needs to know what the subjects of the television programmes will be - the syllabus. Will students study by correspondence over exactly the same period as the television series, or can the course be extended after the series is ended? Is the correspondence course restricted to covering the same topics, in the same order? Or can it have aims which go beyond the television series? What, in fact, are the constraints on the writer in preparing the outline? Are the aims of the course broad or narrow?

Next, the writer will need to know if he or she will be able to use any other printed materials besides the course units. There may, for example, be an instruction manual that goes with the microcomputer. Such a manual may already cover certain topics adequately, and it may suggest an order of presentation for the topics.

Third, the writer needs information about the potential students. Who are they? What sort of background do they have? Why are they expected to be interested in the course? What will they hope to gain from it? How much time will they be likely to study each week? In what circumstances? And, important for this particular course, will they all have access to a microcomputer? If so, how often and where? In their own homes or in a study centre?

The writer will also need to know about plans for tuition. How many correspondence assignments can be planned? Will there be meetings with tutors? For everyone, or just some students?

Information on the budget is also needed. This is not directly relevant to the writer, but will allow the editor to make suggestions on design possibilities, quantity of illustrations or total number of pages that may help the writer to shape the outline.

Finally, any evaluation data on previous similar courses could offer guidance on teaching the subject at a distance.

The same kinds of information are needed for any course: the syllabus;

textbooks, other resources or media available; the students' characteristics, tuition arrangements and face-to-face support, design constraints and possibilities; and evaluation data. Most writers will need an editor's help in sifting through this information, particularly if they are new to distance education.

5. Preparing the outline

The course outline in Example 1 looked simple, but it took a long time to develop. Let us consider why. We will start with the familiar idea of an examination syllabus.

EXERCISE 3

Why might a course outline differ from a printed examination syllabus? How might it be different? Think about this for a few minutes, and jot down some ideas.

(5 minutes)

Comment

The examination syllabus defines the knowledge that must be learned and the skills that must be performed. It does not necessarily present them in an order suitable for teaching, and it does not concern itself with how the learner is going to obtain the knowledge and skills. It does not indicate how thoroughly the material should be covered. It is a convention for some syllabuses to cover a wider range of topics than students are expected to have studied. An exam syllabus may suggest how learners are to demonstrate their knowledge (a 3-hour essay paper, a 2-hour practical examination). It will not describe the skills the student must master on the way to that ultimate performance.

Suppose, for example, you teach a foreign language. The examination will expect students to be able to understand, speak, read and write that language with a level of fluency specified in the syllabus. To achieve that fluency, students have to learn, gradually, vocabulary, grammar and syntax, and gain experience in using the language. They have to acquire skills in, for example, developing arguments, writing descriptions, analysing the meaning of prose. Advanced skills are developed slowly and systematically; you put words together first in sentences, then in paragraphs, then in essays. In order to acquire these competencies, you need to call on yet other skills, those of studying. You have to read carefully, select points to focus on, make relevant notes, memorise efficiently. Students generally need help in developing such study skills.

You must also consider the learners themselves, and their background. A

university student of languages, for example, might learn well from a relatively traditional type of course containing a fair amount of grammar; an adult immigrant with a poor formal education may, on the other hand, need a functional approach to the language of his or her host country, starting with everyday phrases. And what about the study environment of the learners? Will they only study a little at a time? Or are they committed students who will expect to spend two or more hours at a stretch in intensive study? For the first group, the study material has to be broken into small segments, while for the others, topics can be given a longer treatment. What kind of face-to-face or correspondence tutorial support will they have? What other media will be used, and what will their function be? All these questions can affect the choice of subject matter and teaching priorities and the sequencing of the curriculum.

5.1 Choice of subject matter

The final choice is a matter for the subject specialist, but an editor can direct attention to the issues by asking questions such as these:

- Are all the topics suggested necessary?
- Have any important topics been omitted?
- Has sufficient priority been given to the most important topics?
- Has enough emphasis been put on each different aspect of the subject?
- Will the choice of topics enable students to develop their understanding of the subject?

5.2 Order of subject matter

In any learning, there are certain skills to be mastered or information to be learnt before the student can move to the next stage. When we arrange topics in order, we need to ask which ones are dependent on others, or which require skills to be learnt beforehand. The editor, again, can ask questions about order, such as the following:

- Is the basic material before the advanced material?
- Is the specific material before the general material?
- Is the easy material before the difficult material?
- Is the simple material before the complex material?

The most suitable order for teaching is often different from that given in a syllabus or textbook.

5.3 Generating ideas

There is no best way of doing this. You can act as a catalyst, suggesting approaches. Many approaches work, and each team or individual would do well to gravitate towards an approach that suits them. Here are some ideas for different approaches:

a. Make a list of topics or unit titles. Juggle them around till the order seems to make sense.

b. Define all the skills students should have on completion. Formulate these as behavioural objectives. Put the objectives in order.

c. Brainstorm in a group. Each person in turn mentions something that must go into the course, one thing at a time. All ideas

are written down. When people run short of ideas, you look at what you have and try to put it in some sort of order.

d. Assessing other sources. Look at textbooks, curricula at other universities or colleges, different syllabuses in the subject, and any other available models of how to teach the subject.

An outline may take weeks to prepare. The editor will have to give regular encouragement to the writers.

5.4 Organising material into an outline

You can provide writers with a list of headings to help them finalise the outline. Here is an example.

1. Title of course/study programme
2. Target group
3. Aims and objectives
4. Course components (media used, number of study units, etc.)
5. List of unit titles/objectives
6. Number and placing of assignments; other assessment
7. How media are used (eg purpose of radio programmes)
8. Any special features/problems
9. Other resources to be used (eg textbooks)

Some institutions prefer outlines to be presented in a standard manner. If this applies to you, you may like to use the list above to design a form for your writers to fill in with their course outlines.

6. Assessing the outline

It is wise for the writer to seek advice on the outline before moving ahead, and the editor should organise this assessment. Assessment may be carried out in several ways. An outline may be submitted to an academic advisory committee, discussed in a course team, or considered by simply an editor and an academic assessor. In a writing workshop, the outline will usually be agreed by the participants, and this group assessment can replace outside assessment. A complete course outline should always be prepared and checked before much writing is done. It is, however, often useful for a writer to prepare a sample unit at the same time as an outline is developed, to get an idea how the course will work out in practice.

As part of the assessment, the editor checks on some practical points. If the outline suggests residential courses, or laboratory work, will it be possible to make arrangements for these? If broadcasts are proposed, will it be possible to get air-time at suitable times of day? If a course is to be based on a textbook which students must have, is the book available at a suitable price? To check, you must refer to the source of supply. Make sure that the director of educational broadcasting, for example, knows of your plans, and check on a book's availability with the publisher, not just the local bookshop.

7. The editor's role in planning

The previous sections show that the editor has three functions during the planning of an outline:

* to co-ordinate, making sure everything proceeds smoothly

* to facilitate, by providing information and identifying sources of assistance

* to advise, raising questions and suggesting approaches to problems

EXERCISE 4

Go back through the unit and make a checklist of things to do during course planning.

(15 minutes)

Comment

My list would include collecting information as outlined in section 4, suggesting approaches to making an outline, discussing the outline, finding advisors to contribute ideas or to assess the outline, checking on resources, and arranging meetings and target dates so that the process is complete by the specified time.

Summary

This unit has looked at how a course outline is developed and considered the editor's role. I have suggested that you should take an active part in the development of the outline, where necessary taking the lead in arranging team meetings. In particular, you should:

- collect background information for writers
- suggest approaches to generating ideas
- discuss critically their ideas
- design a standard format for presenting the outline
- arrange the assessment
- check on any outside resources proposed

A further role is to support the writers throughout what may be a long process, and ensure progress by firm scheduling.

ASSIGNMENT B

This is a long-term project. Find out all you can about the students your institution aims to teach. Who are they? What educational background do they have? What circumstances do they study in? What resources do they have access to, such as libraries or laboratories? What are their aspirations? What problems do they have? Find out all you can, from research reports, student records, and any other written sources. Try to arrange discussions with student advisers and tutors. And try to arrange to meet some students; you will learn a great deal from a few conversations.

This assignment will help you marshal the information you need for briefing writers. But it is also essential for the rest of this manual. Without a good understanding of your students, you cannot be an effective editor.

Institutions vary a lot in the amount of information they have available on their students. If you find your own institution has very little available, or if you work for a new institution which has not yet accumulated much, try to read a report on students from another distance-teaching institution in your own country or your region of the world.

Be prepared to spend several hours on this project. You can, however, carry on reading Unit 4 before you complete the assignment.

Unit 4 : The structure of a unit

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Introduction

As unit by unit writing starts, what shape should the units take? If a unit has a poor structure, students will have difficulty learning. They may get lost. They must have their attention drawn to what is important and must find their way easily through the text. Clear headings and other typographical features will help with this, but these are of little use if the basic structure of the unit is unsound.

At the end of this unit you will be able to consider the introduction, body and end of a unit and, for each section:

* list those features that are essential and those that are desirable;
* recognise different ways of presenting the features;
* assess material and decide whether these features are present;
* advise the writer on improving the structure;
* make certain amendments yourself.

We will examine unit structure in logical order, from beginning, to middle and end. The unit will take about an hour to complete. In the assignment you will consider the structure of a complete unit, and suggest some revisions. This may take you 2 or 3 hours.

1. What is a unit?

We use the term unit to describe a portion of a distance-teaching text, which is distinct from other portions. Units can be separated by topic - a different subject is covered in each - or by the time they need for study - a week's part-time work in each unit, perhaps - or by a combination of both. Whatever kind of distinction is used, each unit must be self-contained. It should contain orientation for the student, introducing him to the content, explanations of the topics covered, and exercises to help the student learn the material. The material needs to be divided into sections, according to the subtopics.

The editor needs to guide the writer into adopting a clear structure that contains these basic features.

2. Beginning a unit

We will start with an example of a good opening to a unit. Look carefully at Example 2. It is from a course called 'The Arts: a new approach'. It is a pre-university course for people returning to study and planning to start a degree course in arts subjects in the near future. The unit (the word used for 'unit' in this course is 'block') is called The Arts and Childhood. Read the extract carefully and then write answers to the questions.

EXERCISE 1

1. What three skills will the students expect to develop during the unit?

2. What is the unit about?

3. How will the students demonstrate the skills they acquire?

4. How long will they need to spend on the unit?

5. Does the introduction show how the unit relates to other parts of the course?

1. INTRODUCTION

1.1 Aims

This is the first of the three major 'thematic' Blocks of the course. We have chosen these themes – childhood, education and community – because they are experiences that we all share, and because they have proved fertile sources of inspiration for many artists, writers and composers. We all have vivid memories of childhood, and I hope to use your memories to develop the skills discussed in Block 1:

- It is often easier to *write* about a vivid childhood experience which had a profound impact on us when it happened and which we have had time to get into perspective. More recent memories are often more confused; we have not yet sorted out the importance of different events. However, we hope that by practising your writing on an event in the past, you will become better equipped to weigh up recent events, and will feel more confident to write about these in the latter part of the course.
- When we are *reading* about a familiar experience we are perhaps better placed to understand the author than when he is describing an experience which is new to us. His writing about shared experiences will provide you with a common ground which will help in your appreciation and criticism of his work. Again, I hope that by practising the skills of reading critically and selectively on an account of a shared experience, you will feel confident to tackle accounts of new and unfamiliar experiences.
- I hope that, by triggering off memories of childhood, I can encourage you to *think critically*. It is often the events closest to us that are the most difficult to look at critically. By becoming aware of our own prejudices we go a long way towards evaluating the views of others. (You will be doing this extensively in Block 3.) In particular I want to alert you to:
  - the difficulties of writing honestly about childhood
  - the different perceptions of children and adults.

1.2 Outline

I would like to begin with one aspect of childhood – games –, first as you remember them, and then as various artists have seen them. Games form an important part of a child's life; they provide vivid memories, but are also very important in preparing children for adult life. I shall then consider a series of paintings, poems and accounts of childhood episodes. Finally, I will compare childhood and adult perceptions of the world.

1.3 Timing

The Block should take about 24 hours. As in the first Block, I begin by giving timings for individual activities. I hope, however, that you will need fewer hints as the course goes on. Remember: don't get stuck on one activity for too long. Proceed with the Block and return to it later.

1.4 Assignments

There are two assignments. In the first you are asked to write an account of an experience from your own childhood. The second is divided into two parts; *Part I* asks you to compare three paintings; *Part II* asks you to compare two poems.

EXAMPLE 2: From 'The Arts: a fresh approach', National Extension College, Cambridge, UK, 1977, p.19

6. Does the introduction make you want to read the unit?

7. Can you think of anything else a student might need to know before starting?

8. Can you think any other introductory features the writer might have included?

(20 minutes)

Comment

1. Writing, reading and thinking critically are the three skills specified in the section headed 'Aims'.

2. The unit is about childhood. In the section headed 'Outline', the writer specifies that she will begin with the topic of games, and then lists the other themes she will cover.

3. In the section headed 'Assignments', students are advised that they have to write an account of an experience from their childhood, compare three paintings and then two poems. All this work will be assessed by a tutor. The previous section also mentions that there will be activities.

4. About 24 hours (section 1.3)

5. Yes. The last words of the first paragraph indicate that the skills to be developed have been discussed in the previous block. The paragraph about writing refers to work that will be done 'in the latter part of the course' and the one on thinking critically refers to work in block 3, the next block.

6. There are several ways in which this introduction makes me want to read on. First, I get the feeling the unit will be clearly organised, and that encourages me. Then, the description of the aims suggests why these aims have been selected, so that the underlying purpose of the unit is clarified. I also feel encouraged by the way the writer suggests my own experiences will be useful as part of the work, the idea that these will provide 'common ground' for looking at the experiences of others.

I feel that the unit will be interesting and not too difficult, as I already have something to contribute on the subject. Finally, I like the friendly, informal tone of the writing.

7. It might be useful to have a list of equipment or books the students will need for the unit. It could be helpful, too, to suggest in section 1.3 how students might divide up the work. Obviously they are not going to study for 24 hours at a stretch. How long will each section take?

8. The writer might have included a revision exercise or summary of work done in the previous unit. There could also be some sort of diagnostic test, to help the students work out where their strengths and weaknesses lie before they start work on the unit. It would also be useful to have a contents list giving page references.

We can now list the elements needed for a unit introduction. They include:

a statement of aims
an introduction to the subject
study data (time, equipment, books)
a description of learning outcomes
orientation to the subject

All these elements will help students to organise their study. There is a serious difficulty, however, in preparing a unit introduction. How much detail do we include? On the one hand, we want to include all the information students will find useful, both when they start the unit and later when they want to refer back to it. On the other hand, if the introduction is long, many students will not remember all the information and some will not read it at all. We therefore need an introduction that contains just the right amount of information.

3. Presenting an introduction

How, then, should we present an introduction? First, let us look at alternative ways of introducing the five elements listed above.

Aims: a common technique is to present the aims in terms of behavioural objectives; 'at the end of this unit you will be able to do the following ...' and a list follows. This technique gives students explicit guidance on what they will achieve. You will find a list of behavioural objectives at the beginning of each unit in this manual.

A difficulty with behavioural objectives is that in certain subjects the list may be long and forbidding. This applies particularly to science subjects. I have come across units with 20 or more objectives listed. In such cases it may be better to present a description of aims, and specify objectives as each occurs in the unit, with each section heading, for example.

A further difficulty is that formal statements of objectives may look silly and boring in some subjects. The course from which the example above is taken has broad aims concerned with developing skills of writing, reading and thinking. If the objectives were presented formally they would be almost identical in each block. The writer has avoided this repetition by the clear and useful description of aims.

Many teachers strongly dislike the idea of restricting the aims of their teaching to matter that can be fully described in terms of behaviour. While this anti-objectives position deserves to be taken seriously, distant students need clear guidance on the purpose of their studies.

A section headed 'aims' is therefore one alternative to formal objectives. Another is an informal description of aims included in an introduction. (See exercise 2 below.)

Introduction to the subject: this can be an outline, as in Example 2, or an overview describing the main concepts to be discussed, or simply a contents list. Its function is to attract the student's interest and focus attention. Introduction and aims may sometimes be within the same paragraph. The introduction may often indicate how the content of the present unit relates to others in the course.

Study data: most courses have a general introduction giving guidance on study, but often students will need a particular book or equipment for one particular unit. They need to know this before they settle down to work. Such information is often presented in a list or displayed in a frame. When units vary in length, guidance on timing is also needed.

Learning outcomes: a description of these will help students understand what to expect. Expected outcomes are included in any formal statement of objectives. You can also include a brief description of the major work the students will do, as in section 1.4 in Example 2.

Orientation: in Example 2, some orientation is included in the description of aims. We must make sure that the writer has a clear view of what the students know or need to know before they start the unit. If certain skills or facts are essential, then revision of these may be included in the introductory section. If some students are likely to be more advanced than others, a preliminary test will help each individual to discover where to concentrate his efforts.

There is no set formula for starting a unit, but the introduction should always be short, clear, and motivating. Do you think the introduction in Example 2 satisfies those criteria? I think on the whole it does, but perhaps it is rather long.

4. Improving an introduction

Editors often have to rewrite or amend introductions. Writers often forget about matter-of-fact points like equipment needed. Others fail to express their aims clearly enough, and you may have to rephrase them. You may need to impose a format on the introduction, and reorganise the text to fit. Usually the introduction is the last part of a unit to be completed, so final amendments are often made by the editor after the writer has finished work.

Example 3* is another introduction, this time from a workbook containing 8 lessons (units). It is from an in-service upgrading course for unqualified primary school teachers in Lesotho. This book is about home economics. Look at the example carefully then try the exercise.

---

* Example 3 has been reduced in size in our printing, so that two pages can be shown on one of ours. Many other examples have also been slightly reduced, to make them fit. The smaller type indicates which these are.

EXAMPLE 3: From 'Home Economics II: I Clothing', Lesotho Distance Teaching Centre/National Teacher Training College, Maseru, Lesotho

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HOME ECONOMICS II - WORKBOOK I - CLOTHING

INTRODUCTION

Welcome to Home Economics II. This course will deal with choosing, making and caring for clothing, and managing your family's home. Workbook 1 is on Clothing, Workbook 2 is about Laundry, Workbook 3 deals with Home Management and Workbook 4 is on Home Improvements.

In Part I of this Workbook you will learn about choosing clothing for your family. You will learn about the different fabrics clothes are made from. This part also covers fashion and changing styles of clothing, and how to care for your clothing properly.

Part II is about making clothes yourself. There are directions for learning to sew, knit and crochet. You will also learn how to alter clothes so that they fit properly.

The Worksheet for this workbook has three parts. Part I has general questions which will show that you have understood the workbook. Part II has personal questions which will make you look at and think about your own clothing. Part III is your practical work.

You will learn some very useful skills by doing the practical work. It is important that you give yourself plenty of time to practice your new skills and also to complete the things you choose to make. You may choose to make all three things. This will give you practice in all three new skills and you will feel confident to continue making clothes for your family on your own.

Good luck with Workbook 1.

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EXERCISE 2

We have said that an introduction should include a statement of aims, an introduction to the subject, study data, a description of learning outcomes, and any necessary orientation to the subject. It should be short, clear and motivating. What suggestions would you make for improving Example 3?

(10 minutes)

Comment

It is hard to suggest ways to improve this excellent introduction. I note that it starts with a clearly displayed contents list. The text itself starts with a welcome, then a summary of the material. Aims are given by explaining to students what they will learn, and the work for the tutor (worksheet) is clearly described. The importance of practical work is stressed, and the introduction ends with an encouraging "Good luck".

As a student, I would want to know how much time to take over the work. I would also want to know what equipment and materials I would need, and whether I would have access to any face-to-face support for my practical work. I would therefore suggest adding these points. You may have thought of some different ones.

5. The body of the unit

This will normally consist of a number of sections, each of which presents at least one new point, and of exercises related to those points. The writer must make the structure clear. You will need to check that the unit is divided into sections, and that different kinds of work within each section are clearly distinguished.

It is unusual for a unit to be so short that a student works through it in one session. A division into suitable sections therefore provides the student with obvious stopping places.

Within the sections, headings or signs can mark changes from text to exercises. Clear organisation will help the students to see where they are going. Some students will want to take short cuts, missing out or skimming through certain sections. The layout of the text - the use of headings, spaces and signs - will provide the student with guidance. We

shall look at layout in detail in a later unit, but a good layout is only possible if the unit has a clear structure.

EXERCISE 3

Examine the units in this manual. Note how they are divided into sections, with exercises and examples marked off distinctly.

(5 minutes)

6. Common errors

It is difficult to devise a clear structure that will work for all units in a course. You will learn more about organising the main body of the unit as you read through the manual. As you edit, what should you particularly look out for?

There are a number of common errors writers make:

* no breaks in the unit: it runs straight through with no subheadings;
* random breaks: a few subheadings are given, but they do not provide a clear division into sections;
* inconsistent numbering of sections;
* exercises start in the middle of a paragraph;
* exercises all at the end of a unit.

You may be able to add to the list from your experience. Remind the writer of the distance learner's circumstances. Short spells of study, the difficulty of concentration, the need for frequent checks on progress: all these demand a clear structure to enable students to organise their study effectively.

7. Ending a unit

First, your ideas.

EXERCISE 4

What features would you expect to find at the end of a unit? Jot down your ideas before reading on.

(5 minutes)

Comment

You might find any or all of the following: a final test or assignment; a summary or descriptive review of the unit; a checklist to remind students of what they should have done; ideas for further reading or optional activities; a reference to the next unit, to encourage the student to read on; answers to self-assessment questions. Your list will probably be different from mine; as with the beginnings of units, there is no set formula for ends.

Imagine the writer asking the student three questions: Have you done everything? Do you remember what it was about? Can you show me what you remember?

Have you done everything? It is usual, in a longer unit, to provide the student with a checklist of all the main activities. Sometimes we arrange this with space for the student to mark off tasks completed. The example below from an English literature course is arranged under section headings, and gives short descriptions of the work and page references.

CHECKLIST 19

Judging for Yourself

- ☐ Read chapter 3 of *Literature and Criticism* quickly, p. 95
- ☐ Reread and annotate chapter 3, p. 95.
- ☐ Make notes on the points we suggest, p. 95.
- ☐ Optional exercise: compare and contrast the extracts from Browning and T. S. Eliot, p. 95.
- ☐ Consider the points we raise in our 'questions to ponder', p. 97.

Shakespeare

- ☐ Make a summary of Act 3, p. 97.
- ☐ Read our commentary and make notes on the two questions we raise at the end, p. 97.

The Pilgrim's Progress

- ☐ Read pages 110-142 with our commentary and answer our questions, p. 98.
- ☐ Read pages 142-173 with our commentary and answer our questions, p. 100.

EXAMPLE 4: From 'English 'A' level', National Extension College, Cambridge, UK, 1975, volume 2, p.102

Do you remember what it is about? A reminder of the main point is useful, especially when the study of a unit stretches over several days or weeks. This could be a summary, or a list of objectives placed at the end of the unit instead of at the beginning. Below you will find an example of a summary from a science course.

SUMMARY OF UNIT F1

1. The earth and the planets of the solar system were formed from a cooling cloud of gases and dust.

2. The earth is a series of layers called the core, the mantle and the crust.

3. There are three kinds of rock: igneous, sedimentary and metamorphic. Igneous rocks were molten in the past and then solidified. Sedimentary rocks are formed from small particles which generally join together in water. Metamorphic rocks are rocks whose structure is changed by heat or pressure.

4. Soil is formed by weathering of rocks. Chemical weathering results in clay. Mechanical weathering results in sand. An important part of soil is humus.

5. Soil conservation is very important for the future.

EXAMPLE 5: From 'Our Planet Earth: Study Guide Unit F1', Zim-Sci, University of Zimbabwe and Ministry of Education and Culture, Harare, Zimbabwe, p.53

Can you show me that you remember? An assignment or self-marked exercise placed at the end of a unit ought to provide the student with an opportunity to review the major themes of the unit as a whole.

Before you answer "How much do you know?" read and revise Part 2 of this Unit. Spend a whole lesson on revision.

HOW MUCH DO YOU KNOW?

1. Weathering is .....
2. Two types of weathering are ..... and .....
3. A soil made up of very small pieces which holds much water is a .....
4. A soil made up of larger grains which holds little water is a .....
5. A rock which often forms a clay is .....
6. A rock which often forms a sand is .....
7. Soil may be conserved in many different ways. List as many as you can.

EXAMPLE 6: From 'Our Planet Earth: Study Guide Unit F1', Zim-Sci, University of Zimbabwe and Ministry of Education and Culture, Harare, Zimbabwe, p.53

The extract below is from a British human biology unit called 'the food chain'. It shows, first, a suggestion for optional extra work. Next, the unit objectives, labelled 'checklist'. Finally, a note about the next unit.

End of unit recommendation

If you can get to the Natural History Museum in South Kensington (London), it is well worth a visit-taking up at least half a day of your time and may be more. The Museum now has a number of new exhibits which you will find very helpful. Their Ecology section is great fun with buttons to push, very clear explanations and a computer to play with. It looks good and is terrific on food chains and recycling. While you are there, there is a largish Human Biology exhibit and (for later in this course) a really good section on the Evolution of Man. If you have a helpful local library, ask for New Scientist, 15.1.81, (Vol. 89. No. 1236). There is an article 'Pests control pests, but at what price?' which makes interesting reading.

Checklist

You should now be able to:

- state the parts of a typical food chain and give examples including man
- draw simple diagrams illustrating the carbon and nitrogen cycles and explain the importance of decomposers and legume root modules
- briefly outline the reasons why agriculture began where it did
- give examples of deforestation, erosion, eutrophication and monocultures; explain how they come about and suggest a remedy for each of them
- give the reasons why fertilisers are used and relate their use to eutrophication
- give two clear arguments for the use of pesticides – one related to agriculture and one to community health
- distinguish between natural pesticides like pyrethrum and synthetic ones like DDT and list the hazards associated with the latter
- assess the relative merits of pest control by biological and chemical methods
- briefly describe the effect on marine food chains of pesticides, fertilisers and fishing
- make some constructive suggestions for easing the world food problem and be aware of some of the problems of implementing them.

The next unit tells some of the story of food from farm to table.

EXAMPLE 7: From 'Human Biology '0' level, National Extension College, Cambridge, UK, 1981, Volume 1, pp.105-6

EXERCISE 5

In Example 7 above, the objectives are at the end of the unit. Can you list reasons for and against placing objectives at the beginning of the unit, and at the end? Try to write at least one reason in each box of the table below.

	For	Against
Objectives at the beginning		
Objectives at the end		

(10 minutes)

Comment

The answer below shows that it is not easy to decide on the best position for objectives.

	For	Against
Objectives at beginning	Defines for students what they are going to learn. Helps them organise their work	List may be too long and forbidding. Some of the objectives may mean little to the student
Objectives at end	It should be easy for students to understand all the objectives. They can look back and check that they have achieved them.	Not so effective as at the beginning; no help to the student in organising work. The student may have concentrated on the wrong things because the objectives were not clear at the outset.

Some people prefer objectives at the beginnings of units, and others choose to place them at the end. You will have to decide for yourself which you prefer.

8. Preliminary editing

You can make a rough estimate of the quality of a first draft by examining the structure. This takes a few minutes. Check the aims of the unit, and check that there is at least one exercise corresponding to each aim, so students have an opportunity to show what they have learnt. If the aims are not clear, or these essential exercises are lacking, the unit is unfinished or inadequate. You should ask the writer to rewrite it before going any further.

If you accept the text, then you can go on to edit it in the ways suggested in the next few units.

Summary

This unit has identified a number of features that should be present in every unit.

At the beginning there should be:

- a statement of aims
- an introduction to the subject matter
- study data
- a description of learning outcomes
- orientation to the subject

In the body of the unit there should be:

- clear division into sections
- a sequence of new material and exercises

At the end there should be:

- a check on what the student should have done
- a check on what the unit was about
- a check on whether the material has been learnt

An editor must check the text to ensure that all these features are present, advise the writer where improvements are needed, and suggest ways of making the improvements. You must also be prepared to attempt some amendments yourself, and the assignment will give you an opportunity to do this.

ASSIGNMENT C

Choose a course unit or text similar to those you will normally be working on. Check whether the features listed in the summary are present. Mark any points which need clarification. This should take only a few minutes.

Now make a careful analysis of the introductory section. Look again at the samples in this unit, and look at other examples from your own institution. Can you improve the beginning of your sample unit? Try to write an improved version. This may take a couple of hours.

If you have never tried this before, you will probably find it difficult. It is worth persevering; often, an introduction needs revising at the last moment, and the editor may be the only person available to do it.

When you feel ready, discuss your work with a colleague. Remember to explain what you have been trying to do, so that the discussion is constructive.

Unit 5 : Presenting the subject matter

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Introduction

Once you are satisfied with the basic structure of a unit, you will start editing. What will you look for? First, how does the writer present the material? A writer will intend in her units:

* to introduce each point in an interesting way;
* to start with a point that readers will understand;
* to explain each point clearly and accurately;
* to cover points in a logical order;
* to demonstrate the relationship between points.

The editor has to assess whether the writer has presented the subject thoroughly and accurately, so that the students will understand.

At the end of this unit you should be able to:

* decide whether a writer has presented good explanations;
* identify trouble spots;
* hold a constructive discussion with the writer about problems in the text.

In this unit we shall examine together two samples of text, and you will practise identifying problems. While it is the writer's job to make the corrections, you must point out where the text is not clear. The unit will take about an hour to complete. The assignment may take a further one or two hours. It asks you to hold a discussion with writers.

1. Does the text say what the writer means?

A written explanation will normally consist of a main point, a number of subsidiary points and examples to illustrate the points. Points are introduced one by one, in a logical order. The reader is expected to identify the points, perceive the relationship between them, and note their significance. The examples are meant to draw attention to the significance of the points. They are generally chosen as relevant to the students' experience. Example 8 shows just how easily this can go wrong. Read it carefully and then try the exercise. You do not need any background information, except that it is from a British sociology course.

3.1.3 Definition of the city

For purposes of social investigation it is necessary to have a precise definition of the urban unit. This can be done in two ways. Firstly by reference to units of local administration. The local government structure established since the Local Government Acts of 1888 and 1894 divided 'built-up' areas into units like boroughs and urban districts. A second more universal attempt to define urban units was based on the density of population. The census of 1951 introduced this idea, so that wards and parishes with a density of ten or more people per acre were classified as urban. By this second measure it was found that in 1951 there were 31½ million living in urban areas, compared with 35⅓ million living in local administrative areas designated as urban.

Sociological definitions of the term 'city' stress its size, spread and the nature of the relationships between the large number of strangers living in close proximity. Lewis Wirth gave the following definition of a city:

'The city is a relatively large, dense and permanent settlement of socially heterogeneous individuals.'

It was when these socially heterogeneous masses came together for the purpose of work and habitation that the era of mass housing, mass labour force and mass transportation began. It also led to the problems of sanitation, overcrowding and unrest associated with urbanisation.

Other characteristics than size became associated with the city. Competitiveness, anonymity, and impersonality were contrasted with the close ties, personal contacts and involvement of the rural community. In contrast to the village, the city is characterised as a place of loneliness, anonymity, frequent but fleeting contact with strangers, a place of coldness and curt exchanges, and fear derived from the unknown and unexpected event that are so different from the predictability and certainty of village life. But, to conclude that communities do not exist in the city would be a mistake, as we shall see in a later section of this unit.

EXAMPLE 8: From 'Discovering Society', National Extension College, Cambridge, UK, 1978, Volume 1, p.24

EXERCISE 1

Write short answers to these questions.

1. What is the main point the writer is making?

2. What examples are used to illustrate this point?

3. What other points are made?

4. Is the presentation well-ordered?

(15 minutes)

Comment

This may remind you of a school comprehension exercise. The difference is that at school you are tested on your understanding. As an editor, when you do not understand, you must ask the writer to explain it better.

The main point of this passage occurs in the first sentence; "it is necessary to have a precise definition of an urban unit." Three kinds of definition are given. The first two are technical ones, one relating to local government structure and one relating to population density, and to illustrate the point, numbers of urban dwellers in Britain in 1951 are given. The third is a sociological one, and a quotation is given as an example. The passage goes on to mention some problems of urbanisation and some characteristics of cities.

The passage is unsatisfactory in several ways. First, the writer uses the word 'city' in the heading and 'urban unit' in the first, key sentence. Does he mean the same thing by these two terms? Or is an urban unit part of a city? This needs explaining. Second, he says we need a precise definition for social investigations but the passage does not provide one. The first paragraph describes different ways measurements of cities are made, but does not end with a definition, or even a statement of which measure the course will use. The second paragraph quotes another writer's definition, and we are not told whether the course writer thinks it's a good definition or not.

The two short paragraphs that follow do not seem related to the topic of the section, although they are interesting. So the section does not hang together. I think the writer means to cover two different questions: what is a city, and what sociological problems do cities present us. An editor could point out to him that he has not given a clear answer to the first question, and he has given a partial answer to the second but not asked it. This might prompt him to make a clearer statement. We have, of course, taken the passage out of context. Some of the criticisms might be unfair if we saw the complete text.

2. Pointing out difficulties to a writer

Many writers find it difficult to accept criticism, and are surprised to learn that their thoughts are not clearly expressed. The editor has to point out inconsistencies and omissions, and do so tactfully. The next exercise will help you approach this task. First , study Example 9. It is from a history lesson on British foreign policy 1902-14. Read it carefully and identify the trouble spots by underlining them or putting a mark in the margin.

LESSON 2

British Foreign Policy 1902-14 and The Causes of the First World War

A. Essential Reading: Isaac, P. 66-77 (2nd edition)
Teed, P. 69-83

B. Supplementary Reading: M.R.D. Foot, British Foreign Policy Since 1898, P.9-52

The End of Splendid Isolation: the Anglo-Japanese Alliance (1902)

"Splendid Isolation" is the policy we associate with Lord Salisbury, who was Prime Minister until 1902. Even he, at the end of the nineteenth century, was making approaches to other powers to form an alliance.

Agreement with France was made impossible by the Fashoda Incident (1898) when Kitchener forced the withdrawal of a French force which had trekked nearly 3000 miles across Africa and was claiming the Upper Nile Valley for France. France eventually gave way after Kitchener garrisoned Fashoda but the incident nearly brought the two countries to war. Germany under the Kaiser showed a marked hostility.

Agreement with Russia was spoilt by events in China, for in 1900 Russia had seized Port Arthur and occupied Manchuria.

Unable to find an ally in Europe, in 1902 Britain signed an alliance with Japan. The Alliance stated:

(i) Japan guaranteed British interests in China and the Pacific
(ii) Britain recognised Japan's right to Korea
(iii) If either country were attacked by one power, the other country would remain neutral
(iv) If either country were attacked by more than one power, then the other country would immediately be involved.

EXAMPLE 9: From 'History GCE 'O' level, National Extension College, UK, 1965, Volume 1, p.24

EXERCISE 2

Imagine you as editor are talking to the writer and describe the problems as clearly as you can. Make notes on what you would say. Remember that if you do not understand the passage clearly, neither will the students.

(15 minutes)

Comment

There is a major shortcoming to this passage, and that is lack of information. What is 'splendid isolation'? Why did Britain want to start making formal alliances? Very little information is given about the background to relations with France, less about Russia and only 8 words about Germany. We do not know why Japan was prepared to make an alliance when others weren't, nor are we told why it was of any use to either side. What we have here is bones with no meat on them. It is a set of notes, not a full explanation.

There is some reading the students must do in their textbooks. We are not told how the notes relate to the reading. How much are the students meant to learn? With what purpose?

It is difficult to see how to approach the writer. The point to stress is that the text must be much fuller, but, as this is a major criticism, you have to do it tactfully. I would start by saying that it is a clear summary, but students would need to know what 'splendid isolation' was, and why the British wanted to change the policy. We would discuss that first, and then go on to the other points. I would hope that the writer would see for himself that the text was inadequate, without becoming upset or defensive in the process.

You may have found these two exercises rather difficult. That will be partly because you are looking at examples out of context. You will find it easier to pick out problems when you are working on a complete unit.

3. Using a textbook

Many academic courses are built round a textbook, as in Example 9. In such cases, the textbook is normally expected to provide most of the explanations and examples, while the distance-teaching text is more of a commentary with exercises. Such a text is often called a study guide.

The commentary, as we saw above, must be more than just notes. It should:

Before reading

* **give clear instructions about what is to be read**

* indicate the main points to look for
* give hints on taking notes, if necessary

After reading

* explain key points
* comment on or elaborate the argument
* explain technical vocabulary
* check that the student has understood, usually with an exercise

4. Copyright

Often a writer will include extracts or quotations from textbooks or articles in her units. She may also include pictures, diagrams or maps taken from other books. When suitable material exists, it is a good idea to use it. But such material is normally copyright material. This means that only the copyright holder (publisher, author or illustrator) may reproduce the material freely, and anyone else must seek permission to do so. (The copyright laws vary from country to country. You will have to check the terms of the law in your own country.)

To get permission to use copyright material, we have to write to the publisher and ask. This is usually the editor's job. As you have to seek permission to use every extract longer than a sentence or two and every illustration, it is useful to have a standard letter. In the sample below, the main text is standard, while underlined parts vary with each letter.

Copyright letter

People's Education Centre

21 December 1985

The Rights Officer
Best Books Company

Dear Sir

The People's Education Centre is publishing a text called Nutrition for Everyone. It is for adult students and will be distributed free to all registered students or groups in the country. We would like to include in the text the following material:

Figure 1, p.93, from E Bunn, 'Food for All', 1982 Edition. (A photocopy is enclosed for reference).

We shall acknowledge the source of the material. I hope that you will grant permission.

Yours sincerely

M. Stirling

M Stirling
Senior Editor

It can take a long time to identify copyright holders and get replies from them. You have to act early, taking the following steps:

a. for each extract or picture, ask the writer to provide you with exact details of the source (author, book, publisher, date, page number).

b. write to the publisher. If no reply, write again.

c. compose a list of acknowledgements (usually placed on the back of the title page).

You will find it helpful to open a copyright file for any course where there are more than one or two items.

It is most unusual for copyright permission to be refused for use of extracts or pictures in educational texts. Sometimes a small charge will be levied, particularly for using photographs.

5. Some problems

It is time consuming to examine the entire text as we did in Exercises 1 and 2. In fact, you will never have time to do it all, nor do you need to. Instead, you need to get the habit of picking out key passages and checking them. The function of such analysis is not to produce a perfectly argued text - you will never get that anyway - but to alert the writer to passages that are less successful than others. In fact, once some points have been identified, the writer becomes aware of the kind of woolliness or jerkiness he or she is prone to, and will make efforts to improve.

You will not spot all the flaws. A different editor will see different ones, and you yourself will see more each time you go through the text. You may have noticed points I missed as you did exercises 1 and 2. If you miss something, do not feel you have done the job badly. It is never possible to remove all imperfections.

When you raise questions about the content of the text, who rewrites, you or the writer? Normally, it should be the writer. In the process of making amendments, the writer may see other problems, or may decide a whole topic needs presenting in a different way. But sometimes it will help the writer if you offer suggestions. Instead of noting in the margin, 'Change the example', you could write, 'The example you have given here is a good one, but perhaps outside your readers' experience. Perhaps you could include instead a more relevant one, such as ...'. Suggestions will help the writer to think more quickly and constructively.

Finally, you could worry that you are being too fussy. Indeed, the writer could challenge you: 'Why do you want more examples? My class students usually follow this all right. And the students should be able to think for themselves and fill in the gaps. I am not prepared to spoonfeed them.' This is a reasonable point of view, and it is difficult to judge what is the right amount of information and help to offer to students. Two points will help you decide. First, distant students may have no access to information beyond the course. They may have no books of their own or no library to refer to. It is in such cases necessary to include sufficient facts and information in the course. If you do not, you put the most isolated students at a disadvantage.

Second, and more difficult to resolve, is the question of how far arguments and explanations should be laid out in detail. The writer may want students to learn to think for themselves and draw their own conclusions. A thorough exposition may get long and boring. It may help to realise that students often need a lot of help in processing information and selecting key points. What the writer sees as a reasonable challenge could be an insuperable barrier to the student. It is easy to underestimate difficulty.

Summary

We have identified several ways in which a text may be difficult to understand. A writer may have written something different from what was intended. The argument may be in a muddled order, or the presentation incomplete, or the examples irrelevant to the students. The text may lack explicit distinction between main and subsidiary points.

We have also discussed the use of textbooks and copyright material.

I have suggested that you should check key passages for inconsistencies and omissions, and point these out to the writer and ask for amendments. You should also raise questions, even when you are not sure that there is a problem. Be prepared to make the case for comprehensive, explicit texts, given the known difficulties of distant students. If textbooks are used, make sure that the study guide gives clear directions on reading and contains enough explanation. If copyright material is used, start seeking permission to use it as early as possible.

ASSIGNMENT D

For this assignment, you will need a course unit or text similar to those you will normally be working on. You could use the same one that you used for Unit 4.

Read through your unit, mark any particularly good explanations, and mark unsatisfactory ones. Mark relevant examples, and poor ones. Think how you would improve the presentation.

Spend up to one hour on this. By this time, you should have picked out a few problems from part of the unit. There is no need to go through the whole unit in detail (unless you particularly want to).

When you have done this, arrange a meeting with the writer, or find another experienced course writer or editor, and ask them to act the part of the writer. Hold a discussion for 30 minutes to an hour, bringing up each of the problems you have noted. Explain to your partner that you want their help in developing your editing skills.

In your discussion, concentrate on making points concisely and in a way that encourages your partner to make positive changes. You must be clear, firm, but not threatening. You will find this a demanding but rewarding exercise.

Unit 6 : Student activities

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Introduction

Reading on its own will not guarantee learning. In this unit we shall consider how to present activities so students can interact with the text and learn the material better.

At the end of this unit you will be able to:

* give reasons why activities are needed in a text;
* recognise whether sufficient activities are provided;
* differentiate between and describe the functions of questions in the text, self-assessment questions and assignments;
* provide a writer with guidance on choosing and constructing different kinds of exercises;
* provide a writer with guidance on writing answers to exercises.

This unit considers a variety of ways of presenting activities. As you work through it, keep in mind that a good distance-teaching text will contain numerous activities, so that the student is perpetually stimulated to learn. I doubt whether you can have too many activities in a text, although each activity should, of course, have some purpose. A good text will also aim to re-create something like the atmosphere of the classroom or tutorial, with questions and activities designed to represent a dialogue between teacher and learner. You might ask yourself how far your units resemble a conversation with a teacher.

You should be able to complete the unit in 3 hours and the assignment will take a further 1½-2 hours.

1. How often should activities occur?

Our understanding of the process of learning is incomplete. There is, however, general agreement on a number of points.

First, you cannot force people to learn, you can only make learning more likely. A good teacher will encourage people to learn by checking that points are understood, by stimulating students to remember and recall material and by encouraging them to use what they have just learnt. The teacher usually does these things by asking questions, setting exercises or devising problems.

Second, learning proceeds in small steps. Students must learn a little at a time. They need questions and activities at each new step to encourage them to learn and to help them check on their progress.

Third, learning is only complete when people can apply what they have learnt in a variety of circumstances. A course unit needs to include frequent activities which encourage students to apply what they have learnt.

How frequent should they be? Let us answer this question by examining an example, which shows how students, as they read, are frequently encouraged to think and write. Example 10 is from a correspondence course aiming to help adults in Britain with a low level of formal education to improve their skills in communicating.

EXERCISE 1

Read Example 10 and mark or underline all the points where students must think, write, or do something else.

(10 minutes)

Comment

Thinking: the page starts with a question to pause and think about. The first paragraph as a whole contains several questions which ought to keep us thinking instead of just reading passively.

Wise buying

Can we rely on adverts when making our choices? In our major purchases we'll probably want to make up our minds only after a careful look at other evidence. Adverts have to be looked at critically, and questions asked. Look back to the Denclen ad. (on p. 32). We'd want to know more, wouldn't we, about how many is 'many' in the bottom part. Also, more about the statistics (more than a third . . .: how many is this?). How were the statistics collected and by whom? We might give a new soap, pack of sweets or cigarettes a try without great thought. But what about a new washing machine, or cassette recorder?

The big buy – Activity 8

Before choosing an expensive item, what else would you do? (Allow 10 minutes for this.)

I should

- think hard, well in advance, about exactly what I wanted from the product.
- work at my needs and priorities (including expense).
- look *critically* at ads and test them against other evidence (e.g. a *Which* report).
- ask a salesman about guarantees/after-sales service/running costs etc.
- talk to friends with experience of the product.
- read the tests or reports.

In fact, ads are only a small part of the buying. We'd need to consult a variety of written material and several people before deciding on our choice.

Work for your tutor

Now collect together the work you've been doing on this unit and send your tutor the following:

1. All Bran and the Tommy Gun (Activity 1).
2. Sell grandma a gun (Activity 2).
3. Baths and bread (Activity 3).
4. Ads in your own magazine (Activity 4).
5. Building societies (Activity 5).
6. Showers (Activity 6).
7. Cars (Activity 7).

Total time for unit: 2¾ hours.

EXAMPLE 10: From 'Wordpower', National Extension College, Cambridge/Wolsey Hall, Oxford/International Correspondence Schools, UK, 1976, Volume 1, p.46

Writing: the student is supposed to spend ten minutes writing an answer for activity 8.

Other things to do: paragraph 1 contained an instruction to look back at an earlier page. The final part of the page asks students to collect and send off their work, and incidentally tells you that they have completed seven pieces of work for their tutors in 2¾ hours.

I am sure you noticed, by the way, how the writer uses examples from the students' environment. You will remember that in Unit 5 we mentioned the need to choose relevant examples.

You cannot sit back and read this page. A feature of a good distance-learning text is constant pressure to keep the student attentive and active. If you receive a draft unit which, at a glance, consists of paragraph after paragraph of prose, it is unlikely to be satisfactory.

Most writers fail to include enough activities in their first drafts. One reason is that they are too bound by convention. An ordinary textbook, designed for class use under a teacher's guidance, assumes that the teacher will ask questions, explain difficulties, set further exercises and so on. A new writer will often think that something like a conventional textbook is what is wanted. Discuss with the writer how a textbook is used in class and compare this with the circumstances of the distant student. She will begin to see that she has to write the teacher's interventions into the units as well.

2. Where should activities be placed?

You can identify points in a text where a teacher might ask a question or set an exercise. The next exercise will help you to do this. Look first at Example 11 on the next page. It is from a unit of a course about child development for parents. This short section is part of a longer discussion about when babies start to learn. I have marked the passage to indicate points where I think the writer could, with only minor amendments or additions, make the text more interactive. Read the passage carefully, then do the exercise.

EXERCISE 2

What suggestions would you make for changing the text at the points marked?

1.

2.

EXAMPLE 11: From 'Child Development', National Extension College, Cambridge, UK, 1970, Volume 1, p.39

Feeding and Crying

1 Asked what were the most noticeable and striking things about the very young baby's behaviour one would find high on everyone's list sucking, crying and nappy filling. The last of these becomes important later in the infant's life, when he begins to be capable of exercising some control over his bladder and bowels, and it will be dealt with at that point. The first two,
2 however, crying and feeding, are of very immediate importance during the early months of life. Firstly, both appear to be examples of what we have called innate behaviour patterns. The baby is born well able to cry and to suck. Secondly, although some of the parts of the body involved are the same, these are very different behaviours. The baby cannot do both efficiently at the same time. In *crying*, one gets first a few early warning signals. The forehead wrinkles, the jaws lower, the eyes shut tight, the mouth opens, the tongue and nose seem to flatten and the legs start kicking. When the real crying starts, the face remains crinkled up, the breathing pattern is very distinctive, the eyes remain shut, the legs continue to kick alternately and the arms also join in. During *feeding* the jaw is busy, the eyes are more often open (usually gazing straight up at the mother's face). The baby's face is smooth, his posture relaxed and all *general* activity is reduced. The mouth, however, is involved in a quite complicated behaviour. Sucking, swallowing and breathing are all going on, and are co-ordinated into an impressively smooth rhythm.

We can see then, that crying and feeding can't easily occur at the same time. Yet *in another sense* they do 'go together'. *Crying, of course, is very often a sign that the baby now wants a feed.* The feed arrives and the crying stops. The 'bridge' between these two behaviours is the insertion of the nipple or teat into the baby's mouth. The nipple-in-the-mouth is a signal to stop crying and
3 start sucking, and babies do seem to have an *innate* ability to react to this signal by switching from the one behaviour to the other.

4 Interesting signs of *learning* have been found even here however.* Babies restless and crying for a feed *became* much *quicker* with practise at recognising the nipple and switching off their crying movements when it arrived. (He also found that they became better and better at noticing when the nipple had been removed, and switching back to crying again by way of protest.)

* Cohen, 'The crying newborn's accommodation to the nipple. *Child Development*, 1967, March, Vol. 38, No. 1

3.

4.

(10 minutes)

Comment

1. A section starting 'Asked what' is a giveaway. Why doesn't the writer ask the question, to get the students thinking? There are two ways he might do this. He could write the question, 'What are the most noticeable and striking things about a very young baby's behaviour?', and leave a space for the student to write an answer. Or he could give his answer, as it presently stands, straight away. I favour the latter; the question is only intended to start the students thinking, and it will probably succeed.

2. The writer has said that crying and feeding are 'of very immediate importance' and given two reasons. If this point is really important, let's have a question to check that readers have understood it and to help them remember. The question might come at the end of the section.

3. I've underlined the word 'innate' as it appears to be a semi-technical term, and readers might not understand it. I would expect the term to be defined, and there could also be a question which asks people to use the term, to help them learn it.

4. Same point as 2. The general discussion is about when babies start to learn, and here is an example. A question would help readers to appreciate that the example is significant, and help them to remember it.

3. Questions in the text

Writers often ask for advice on the kinds of exercise they should use. It is only possible to give limited guidance; the design of exercises requires imagination as well as knowhow. But you can give some guidelines, and offer plenty of examples. The rest of the unit will help you do this, considering three major styles of questioning: questions in the text, self-assessment questions and assignments.

Questions in the text draw attention to a point. They require no written answer, but indicate to students that they should stop and think for a moment. Here are three examples:

WHY HAVE THE BOARD OF DIRECTORS?

There are several reasons why a Co-operative Society should have a Board of directors. Due to their number, the members cannot all attend to the day to day activities of the society, moreover they are always busy with their personal work. On the other hand the management of the society cannot be entrusted in the hand of the paid staff only with proper control. The Board of directors attend to and control the activities of the society on behalf of the members. Since the directors are fewer in number they are capable of making quick decisions concerning the affairs of the society on behalf of the members. The Board of directors plan the activities, and set guidelines and general principles of operations of the society.

EXAMPLE 12: From 'Society Management', Zambian Co-operative College, Lusaka, Zambia, no date, Lesson 3, p.16

Comment

This is from a correspondence course for officers in co-operatives. The heading of the section is in the form of a question. This alerts the reader to the theme of the section.

Do you know how we *taste*? Well, there are *taste buds* on the tongue which respond to four basic tastes - sour, salt, bitter and sweet. When a piece of food is placed on the tongue we register the proportions of these four properties contained in it and this blending gives the food its basic flavour.

Did you know that it is possible to swallow a pint of beer whilst standing on one's head?
Why? Because food and drink doesn't just fall down the oesophagus due to gravity, but is squeezed down by the action of the muscular walls.

EXAMPLE 13: From 'Discover the Living Body', Mauritius College of the Air, Moka, Mauritius, 1982, Study notes programmes 4-6, p.6

Comment

This text, part of a secondary-level Human Biology course, has questions interwoven with explanations and examples. The reader is not expected to write answers. The questions are meant to start him thinking.

4.2 ADAM SMITH: 'REASONER AND MECHANIST'

We have considered what it is about Rousseau's thought which entitles him to be called a 'poet' in Shelley's sense. Shelley does not discuss Adam Smith and so it may seem a rather speculative matter to consider whether Adam Smith was a 'reasoner' or 'mechanist' in Shelley's sense. The point of raising that question, however, is not to make speculations about what Shelley thought but did not write down. It is worth asking whether Adam Smith was a 'reasoner' or 'mechanist' in Shelley's sense because, in the first place, a good way to understand someone's distinctions is to try to make use of them. The interest of Adam Smith is that he had much more favourable views about civilized society than Rousseau and, as you have already seen, Smith by no means objected to the increased dependence which men had on one another as a result of the increased tendency to the division and combination of labour.

I should like you to read at least the first two paragraphs of the extract from Shelley's *The Defence of Poetry* in the Reader (page 211) as well as at least the first five paragraphs of the extract from *The Wealth of Nations* in which Adam Smith writes 'Of the Division of Labour' (Reader, pp. 180 ff.).

EXERCISE

Do you think that Adam Smith is a 'reasoner' or 'mechanist' in Shelley's sense? Why?

Please pause here. Do not read on until you have completed this exercise.

SPECIMEN ANSWER

It seems fairly clear from the second paragraph of the Shelley extract that he regards political economists as 'reasoners' and anyone who favours the use of machinery as a 'mechanist'. Shelley warns the mechanist and political economist lest their speculations tend to 'exasperate at once the extremes of luxury and want'. The danger lies in the effects of their speculations on the abridgement and combination of labour. Adam Smith is clearly an enthusiast for both. His emphasis is on the division of labour but the combination of labour is the other side of the same coin. To get more work done by making members of a work force more specialized it is, of course, necessary to have not merely 'a proper division' but, as Smith recognizes, a proper 'combination of their different operations' (Reader, page 181). Smith evidently favours 'the invention of a great number of machines which facilitate and abridge labour' (Reader, page 182) because of its part in increasing the amount of wealth. For this reason Smith seems to be a 'mechanist' in Shelley's sense.

EXAMPLE 14: From 'Key Concepts: An Arts Foundation Course Unit 21', The Open University, Milton Keynes, UK, 1978, pp.33–4

Comment

Here the question is set apart from the text. It requires careful thought. You could link this difference to the difference in level; Example 14 is much more advanced than Examples 12 and 13. Notice, however, that even though a specimen answer is given, the exercise only asks the student to think. The question directs your response to reading the extracts mentioned, and makes you develop your ideas, which are then developed further in the specimen answer.

How important are questions of this nature? If they are important, why not make them more formal, and tell students to write an answer? Such questions help hold students' interest and reinforce their understanding, without making too many demands. People can get impatient if they have to stop and write too often.

Such questions also help students to generate their own ideas. They can help them relate their learning to personal experience. A question can ask you to think of examples from your personal experience. In a text for people with limited educational background, this kind of question is very important, as writing may be quite difficult for them. Questions in the text can be used to stimulate discussion as well as thinking.

4. Self-assessment questions

Exercises which require written answers are usually called self-assessment questions (SAQs for short). This is because the student normally checks the answer and thus assesses his own performance. As distant students seldom have access to a tutor, they need frequent questions and answers to keep track of their progress. This shift from teacher assessment to self-assessment is a key feature of distance education. Every writer must learn to construct good SAQs.

Most SAQs will have clear right and wrong answers. This is a requirement which many writers used to lecturing or class teaching find difficult. They cannot easily see different ways of presenting questions and answers. You will need to show them plenty of examples.

EXERCISE 3

Read carefully Example 15 about landmarks in a baby's development. Imagine that the writer has asked you for ideas for an exercise on this material. Write an exercise which will help students remember the important facts.

(30 minutes)

Comment

Here are samples of several different kinds of exercises, based on the table above. I have written these to give you some ideas and demonstrate different ways of asking questions, about the same material. In practice, only one of these seven options would be used. The answers are given, but underlined.

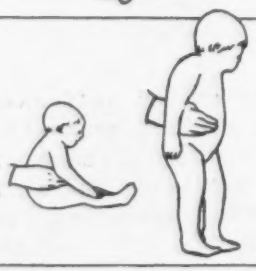
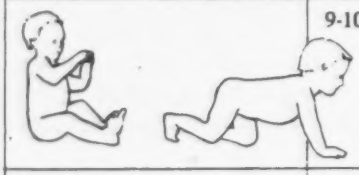
A. Question and answer

a. At what age can a child sit up without support? 9-10 months

b. Can a child say any words at 6 months? No, just 2-syllable sounds

Three or four more questions must follow, to cover each stage. This kind of exercise can help students to select and remember important points. Questions may also be framed to be more demanding - see the section on multiple-choice questions below.

Table 3.3 Some landmarks of the first two years of life

Posture	*Age*	*At about this stage the infant can:*
	birth	suck, breathe, and swallow in a co-ordinated manner. He can grasp and lies with his head on one side when on his back.
	2-3 months	coo and gurgle when happy and is aware of sounds – a step up on just crying. He can follow,objects with the eyes but his grabs at toys are still very jerky – smiles at mum and dad.
	6 months	prop himself up a bit but still needs support to sit (probably). He is now twice the weight he was at birth. He can reach and get a toy which he can focus on. He can lift his legs a bit and kick. He makes two syllable sounds when chattering to his parents.
	9-10 months	sit up without support and start to crawl. Perhaps knows one or two words and is using both hands to grasp things.
	1 year	pull himself upright but probably then gets stuck. He's three times his birth weight and much stronger. A few 1 year-olds can walk. He can pick things up with thumb and fore finger, wave, play games like 'pat a cake' and throw toys on the floor. Personally I don't think babies are much fun till they reach this energetically crawling, more responsive stage. You may well disagree.
	1½ years	pile up three bricks to make a tower. He is learning to be more co-ordinated. He knows maybe two dozen words and can turn the pages of a book. He's now what's known as a toddler.
	2 years	can run but usually leans forward to do it. He can bend to pick things up and climb stairs one at a time. Towers are six bricks high and words are beginning to be put together as sentences. He likes stories about himself and is still better at playing by himself rather than other children – he is very possessive.

EXAMPLE 15: From 'Human Biology 'O' level, National Extension College, Cambridge, UK, 1981, Volume 1, p.39

B. Fill in the gaps: forced choice

Here are descriptions of several children. You are given their ages. Put the right age in each description.

baby 6-mth-old 1-yr-old 2-yr-old

'Nurse was exhausted at the end of the clinic.
2-yr-old Jimmy played with the bricks while he was waiting his turn. Mary, a 1-yr-old, kept staggering across the room and knocking over Jimmy's towers of bricks. Jimmy would then run to his mother and try to push the baby Jane off her lap. Jane would cry and add to the constant chattering of 6-mth-old William kicking in his pram.'

C. Fill in the gaps: free choice

We could use the same story, but this time without a given list of ages. Students would have to work these out for themselves.

D. Multiple choice

There is only one correct answer, which the student must select by ticking the box.

1. A six-month-old child usually weighs:

☐ a. the same as at birth

☐ b. six times his birth weight

☐ c. three times his birth weight

☑ d. twice his birth weight

2. Mary can walk but not run, call the dog by name, and put a hat on her head. Which is she most likely to be?

☐ a. 9-10 months

☐ b. 1 year

☑ c. 1½ years

☐ d. 2 years

Notice that I have made sure that a different box needs ticking in each case. One difficulty with multiple-choice questions is people can guess the answers and get them right quite often. But you may have noticed that the two questions above are at different levels. The first just requires careful reading of the text to get the answer. The second introduces new information. I have used the fact that a 1½-year-old knows a few words and is fairly co-ordinated (can pile up 3 bricks) to describe Mary's behaviour. The reader must think about the information and transfer it to a new situation. There is still only one correct answer, but the question is more demanding. Multiple-choice questions can be constructed at different levels of difficulty.

E. True-false

Tick the box for a correct statement. Put a cross for a wrong statement.

1. A 6-month-old child can sit without support. ☒

2. A 2-year-old can run. ☑

And so on. Another way of using the same idea is to give pairs of statements, one right and one wrong. Like the multiple-choice format, these questions can be easy or difficult.

F. Putting items in order

Here are some things young children learn to do at different stages. Put them in the order children usually learn them.

sit without support	2
kick	1
run	4
walk	3

This particular exercise is too easy, but the type of exercise can be useful.

G. Matching

The first six exercises are ones I wrote as examples. This last one is what the course author provided.

Now look at this list of further infant activities which are in a jumbled order. Try and guess which stage they refer to in a small girl's development. (Development is similar in both sexes at this stage.)

a) She enjoys sitting up and watching what goes on. She is beginning to get control over neck muscles.
b) She is becoming an explorer. This is a time of temper tantrums and jealousy.
c) Very unhappy if separated from mother -- she is just beginning to move around the world on her own.
d) Aware of family members, and has increasing mobility.
e) Spends most of her time asleep and stares a lot when awake.
f) Begins to eat solids and gurgles begin to sound more like words.

---

a) This is between 3 and 6 months.
b) The classic 2 year old.
c) About one year old.
d) 6 to 9 months.
e) A new born baby.
f) 9 months.

Remember these are averages. Babies have their own proper rates of development which vary from child to child.
If you found this SAQ difficult it is probably because you don't know any small children personally.

The student has to match the descriptions to the age ranges in the explanation. Also notice how the writer has managed to make the exercise quite demanding. Helpful comments are given along with the answers.

These 7 examples show that there is no need for Self-Assessment Questions to be monotonous. They must always, however, be structured so that the student can judge whether his answer is a good one or not.

Now look back at the exercise you wrote and evaluate it. Make any alterations you want. Do you think any of these exercise styles are better than others?

5. More self-assessment questions and their answers

Earlier in this unit I stressed the concept of reinforcement. I suggested that writers should be encouraged to introduce into their units numerous exercises with correct answers given, so that students can check their progress regularly. But the more open-ended kind of SAQ also has important functions. One is to encourage students to think more independently, to develop their own responses and ideas. Another is to help them to relate what they are learning to their personal experience. But with questions of this nature, the students may feel unsure about the quality of their reply. The next exercise examines how we can deal with this difficulty. First, read Example 16, from a British Open University foundation course introducing students to study of the arts and humanities.

EXERCISE 4

Distance education is often criticised for being impersonal. It need not be so, and one way of increasing the relevance of a text to an individual learner is to encourage him or her to consider personal experience. Here, the writer asks students to observe what is around them. I am sure you noticed straight away the striking difference between the length of the question and the length of the specimen answer and discussion. Before you read any further, think carefully about the two questions below.

1. The writer gives his own answer to the question as a specimen answer. How will this help the student?

2. Are there any points in the specimen answer which could not be made from general knowledge?

(10 minutes)

Comment

For questions about personal experience, a suggested answer from someone else's personal experience is useful, as it suggests to the student the kind of things he or she might have written down. No answer at all is unhelpful, and any attempt at a complete list of all the things a student might have mentioned is unlikely to be truly inclusive. A comprehensive list would also remove the point of such an exercise by restoring impersonality.

On the second question, most of us would not be able to put together all this information so coherently, even if we could think of the individual points. The author uses the answer to develop ideas, and the paragraph headed 'Discussion' takes this even further. Answers teach, as well as questions. An answer to an open-ended question has to be long, because it must cover different possibilities.

2.2 INDUSTRIALIZATION AND YOUR OWN ENVIRONMENT

EXERCISE

Look round the room you are in and try to identify the way in which it and the things in it – furniture, books and so on – were made. Then try, very roughly, to date them, using such knowledge as you have to hand.

SPECIMEN ANSWER

I'm writing this in my study at home, and this is what I'd put down:

1 The room is in a typical four-roomed working-class house, built about 1900. There are millions like it in England, but most of the materials were probably local, as there was a brick-field and timberyard in the village. The slates probably came from North Wales, the large panes of glass in the windows were a nineteenth-century innovation, the wood for shelves, rafters and planks was sawed by machinery, but apart from these features its design and construction would have changed little in 300 years.

2 The furniture is all of wood, probably machine-cut but hand-assembled.

3 There are various textiles in the room: curtains, carpets, furniture-coverings and lampshades. Some are cotton or wool, some are nylon or plastic. The first two would only be found in a house like this after the mass-production of textiles began in the late eighteenth century, while the petroleum-derived materials date from after the Second World War.

4 Being a study, the room is packed with books and paper. The history of the paper and printing industries goes back to the fifteenth century, but mass-production here dates only from last century.

5 Finally there's a number of mass-produced precision goods – clock, typewriter, record player, electric fire, radio, calculator. Except for the first two these require electric power, and the construction of all of them depends on electricity and the technology it has created. This, and the development of sophisticated transport and marketing techniques, enables complex, interchangeable components to be constructed, assembled, and sold at low cost. These are all products of the late nineteenth and twentieth centuries.

DISCUSSION

This exercise shows you, I hope, the value of asking basic questions about everything around you and more specifically about the numerous technical terms that will come up when you study industrialization. Commodities are, after all, actual things that we want to buy. Manufacturing processes are ways in which they are produced. It's important to visualize both, just as it's important to find out how the vocabulary of industrialization developed, and when words that we use today in fact came into use (hence the value of historical dictionaries like the multi-volume *Oxford English Dictionary*). Secondly, it shows that you can't isolate individual inventions from changes in the 'infrastructure' on which they depend. You can't have radios without electricity generation, transmission and storage, just as you can't have slates on your roof without the transport that brings them from North Wales. Finally it reminds us that, even today, the manufacture of some of the products that we use, like houses and furniture, is not totally mechanized. The impact of the machine varies – and varied even more in the past – from industry to industry. The need for skill, moreover, remains. Someone has to service and repair my radio and typewriter.

EXAMPLE 16: From 'Key Concepts: An Arts Foundation Course Unit 21', The Open University, Milton Keynes, UK, 1978, pp.8–9

6. Presenting the answers

I always advise the writer to write the answer immediately after writing the question. This is sound advice for all exercises; sometimes the supposed answer to a question is not as simple as one thinks. I would also advise the writer to give a lengthy answer, to help students who have made a mistake, and to exploit the teaching potential of the answers.

In these units each exercise is followed by a comment. My comments are the answers to the exercises. How do they relate to what you have just read about answers? In some cases, you will find a definite answer to a question, usually with some elaboration. In other cases, my comments are suggestions, to set you thinking. They may contain new information, and link one part of the unit to the next. You might like to compare this way of presenting answers with the more common one of numbered lists of answers in the back of the book. Both are acceptable ways of giving answers. When might each be appropriate?

7. Assignments

You may have noticed that I offer no comments on your assignments. Instead, I suggest that you discuss your work with colleagues.

In most distance teaching, an assignment is marked by a tutor. In your case, you are asked to discuss your assignments with colleagues. The ordinary distant student is more isolated than you and from time to time will need the help of a tutor. Most often, tutorial help will be by correspondence, although some institutions use the telephone for tutorials, and others can arrange face-to-face tutorials.

EXERCISE 5

I would like you now to look quickly through this volume and find all the assignments. What are the main differences between the assignments and the exercises? Jot down one or two points below.

(10 minutes)

Comment

The assignments are more substantial pieces of work than the exercises. They ask you to apply what you have studied in the unit to your own circumstances. Each of you will produce a unique study for your assignments, and a printed model answer would be of limited use to you. At the same time, you will put time and effort into your assignments, and will want some reactions to your work.

In most programmes of study, there are stages where self-assessment is

inadequate. In distance-teaching programmes, these are the stages where tutorial support is provided. The most important function of an assignment is to give students feedback on the kind of work they cannot mark for themselves.

Here are some examples of assignment work, taken at random from courses:

1. An essay of 750 words about problems facing the British National Health Service (introductory social sciences course)

2. Describe how to test a particular food (chosen from a given list) for protein, fat and carbohydrate (human biology course)

3. Conduct an experiment on friction and describe the results (an introductory science course)

4. An essay on important developments in trade in the sixteenth century (economic history course)

You can see from these examples that assignment work often takes the form of essays, and generally requires students to analyse and use information and concepts studied during the unit. Sometimes students are asked to develop an individual project. For work of this nature, a tutor's assessment is necessary.

EXERCISE 6

We have just seen that assignments allow the tutor to assess the quality of the student's work. Can you think of any other functions of tutor-marking in distance education?

(5 minutes)

Comment

First, the tutor can identify and help with any particular difficulties the student is having. A short test, for example, of multiple-choice questions can tell the tutor which concepts need further explanation. The questions will be no different in kind from self-assessment questions. The tutor gets an opportunity to check that the student is making progress, and students learn which are their strong and weak points and get advice from the tutor.

Contact with the tutor also has an entirely non-academic function. It provides the student with some human contact. Regular assignments help students to sustain the motivation to complete their courses.

You will have to advise writers on how to distribute exercises between SAQs and assignments. Writers often have difficulty in perceiving the function of assignments. Some writers will attempt to make materials entirely self-instructional, and forget to consider assignments or include them as an afterthought only. Other writers want to have everything marked by a tutor.

EXERCISE 7

What points would you make to a writer who wanted every student exercise marked by a tutor? Note below any points you can think of.

(10 minutes)

Comment

I would point out that it would be very expensive, as the tutor's time would cost money. It would also be inconvenient to the students who would have a whole series of delays to their studies as they waited for the tutor's reply through the post, or travelled to tutorials, or waited for telephone calls. Finally, it is unnecessary. People are quite capable of managing their own learning providing they are given enough guidance on how to do so. Even small children can mark their own tests. Adults need to become confident independent learners. This last point carries the greatest weight.

Ideally, assignments are distributed so that students complete them every three or four weeks. If communications are good and money plentiful, they can be more frequent. Students are more likely to complete courses if they have regular, frequent feedback from tutors. An assignment should usually include demanding work which requires the tutor's comment and some work to check progress. The British Open University regularly has two kinds of assignment, tutor-marked and computer-marked, the computer monitoring progress while the tutor gives the individualised comments.

Example 17 is an assignment (here called a worksheet) from the secondary-level History course we looked at earlier. It is an example of an assignment added to a course unit as an afterthought. The questions are just like exam questions. Read it carefully and then do Exercise 8.

WORKSHEET B

Answer three of the following questions, if possible within $1\frac{1}{2}$ hours. Label your work clearly by attaching the enclosed Identification Slip, and send it to your tutor.

(1) What part was played in the 1914-18 war by (a) Russia; (b) Turkey; and (c) Italy ?

(2) Why were the Central Powers defeated in the 1914-18 war ?

(3) Describe and explain the main terms given to Germany in the Treaty of Versailles, and show how far they were responsible for the difficulties of the German Republic (1919-1939).

(4) How did the League of Nations try to secure international peace and cooperation ? What in your opinion were its most successful achievements ?

(5) What attempts were made between 1905 and 1939 to relieve unemployment ?

EXAMPLE 17: From 'History GCE 'O' level', National Extension College, Cambridge, UK, 1965, Volume 1, p.102

EXERCISE 8

You want the writer to improve this assignment. What suggestions would you make to her? Think about this for a few minutes before reading on.

(5 minutes)

Comment

It could be very difficult to get through to this writer. She obviously thinks in an exam-oriented way (choice of questions, all essays, timed answers) and the assignment certainly is offputting. Most distant students at this early stage in their course would find the requirements too demanding. Their confidence would be sapped. I would ask the writer to replace some essay questions with short-answer questions to cover the facts. There could be one or two questions on the more difficult topics requiring short essays. The suggestions would lead us to a discussion about the function of the tutor. The writer would also need advice on

providing the students with some guidance on how to set about the assignment; there may be no advice on how to write essays elsewhere in the course. The real problem is that the writer does not see the assignment as part of the fabric of the unit. That is clear from the brisk and impersonal way it is presented.

Now look at Example 18. The contrast is striking. The worksheet here is at a lower level, junior secondary. The questions are manageable, and there are spaces to write your answers. The number of marks allocated to each question is given in brackets, so that students can see the weight given to each question. I have reproduced only the first of three pages. The complete assignment has 18 questions, to give the students plenty of practice, and the marks add up to 100.

JC GEOGRAPHY

DEPARTMENT OF NON-FORMAL EDUCATION

WORKSHEET 4

Name _____ Student no. _____

Tutor's mark _____

Write your answers in the space near each question.

1. Which planet takes 89 days for one revolution round the sun? _____ (4)

2. The permanent tilt of the earth's axis and the revolution of the earth in its orbit together cause _____ (4)

3. When GMT is 3 p.m. the local time of a place is 12.00 noon. What is the longitude of that place? _____ (3)

4. Are summer months in Mediterranean areas dry or wet? _____ (4)

5. In which climate do people lead a nomadic life? _____ (4)

6. Draw a climate graph from the following statistics.

Durban:

	Jan	Feb	March	April	May	June	July	Aug
°C	24	24	24	22	20	18	17	18
mm	116	134	152	91	66	46	43	46

	Sept	Oct	Nov	Dec
°C	19	21	22	23
mm	70	128	118	132

(18)

EXAMPLE 18: From 'Junior Certificate Geography', Department of Non-Formal Education, Gaborone, Botswana, 1980, Workbook 4, p.69

8. Guidance for tutors

There will often be many different tutors acting as assignment markers on a single course. They will need to work to the same standard, judging students' work by similar criteria. The course writer must provide them with guidance. This will normally be in the form of tutors' notes, which should be prepared as the units are written. It is sometimes difficult to persuade the writer to produce such notes. They should include:

* a statement of the purpose of each assignment question

* a marking scheme which indicates:

  (a) the proportion of total marks allocated to each answer

  (b) for each answer, the criteria used for allocating marks (eg 2 for accuracy, 2 for imagination, and so on)

* answers or model answers if relevant

These points apply to each assignment. Tutors' notes may also include general guidance on how to tutor by correspondence.

Summary

This unit started with questions about learning, leading to an examination of the texture of a unit. We discussed:

- short questions in the text
- self-assessment questions
- answers
- assignment questions
- guidance to tutors

The treatment has been detailed, and the numerous examples should provide an editor with plenty of ideas to present to writers. There are two key points:

* a distance-teaching text should contain plenty of questions of different kinds

* the student must get adequate feedback at the right time

The answers in the text, and the amount and nature of tutorial support are just as important as the questions themselves.

ASSIGNMENT E

Work with your sample unit again. Identify all the activities and mark those you feel are particularly interesting or successful. Mark any that you think need rewriting, such as questions with more than one correct answer. Finally, mark any points where you feel activities could be introduced and, if you can, suggest what form the activity might take.

Spend about an hour working on the unit, and then find a colleague and discuss your work. If possible, hold your discussion with a course writer who has experience of writing self-assessment questions.

Unit 7 : Providing study advice

Contents

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Introduction

A course unit may be well-written, but can the reader perceive the writer's intention? Is the material at the right level for students? Have they the necessary skills to extract the meaning?

Skills of this nature are often called study skills. In this unit we shall consider a range of study skills, ask how far we can expect students to have these skills, and consider how we can help them to acquire them.

At the end of this unit you should be able to:

* decide if a unit contains sufficient guidance on study skills;
* advise a writer of cases where training in such skills is needed;
* suggest ways in which such training might be provided;
* suggest alternative ways of presenting material to allow for different approaches to study.

The unit starts with the need to teach study skills. We then consider their development, first by direct training and then by matching the level of the text to the expected competence of students. This leads us to consider using techniques such as pictures and stories to make materials more accessible to students with various approaches to study.

The unit will take about one hour. You may find it helpful first to look through Assignment B about your own students. The assignment will take one or two hours, and you will need a sample course unit to work on. You can use the same one that you used for the last assignment.

1. The need to teach study skills

A competent student will be able to read a text and select from it important points, classify them, develop arguments, formulate concepts, draw conclusions. An inexperienced student may need help with all these tasks. Experienced students, too, may have difficulty in coping with certain subjects. When students are in class, adjustments can be made to teaching and individual assistance given to help with study problems. With distant students, no such assistance is possible. We must therefore try to present our teaching in a way that helps students develop new approaches to study and new study skills.

As you work on a text, ask yourself what skills the student will require to handle the material. Is the writer giving the students enough help with developing those skills? A class teacher instructs people in study methods as a matter of course. Teachers tend to forget to do this when they start writing. You have to remind them.

No group of students will be homogeneous in their approach to study. We cannot assume that all pre-university students need help with making notes, and we cannot assume that all university students will already know how to do this. Anyone studying at a very basic level will obviously have limited experience of study and will need a great deal of assistance in learning how to learn. On more advanced courses, some students will need more help than others, and the writer must provide enough help for the weaker students so that they gradually accumulate more skills.

How can this be done? One solution is to provide special courses in study skills. These can be general or relate to particular subjects. For example, the National Extension College has a general course, How To Study Effectively, and a number of short ones on such topics as writing essays for social sciences. A general study skills course usually includes advice on making a study timetable, organising a place for study, reading techniques, note taking and memorising, revision and exam preparation, and so on. The disadvantage of such courses is that they are studied in separation from the main subject of study, so that students may fail to apply the techniques to that subject.

A second method is to teach study skills at relevant points in another course. This can be done directly or indirectly. We look at each in turn.

2. Direct teaching of study skills

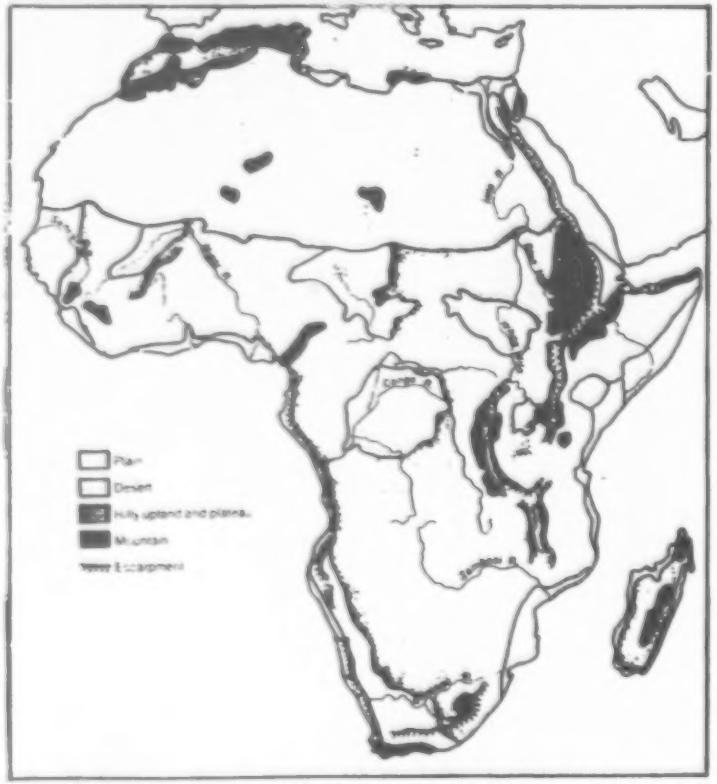
As a course is planned, it is possible to list a range of study skills a student requires to complete it. If our knowledge of typical students suggests that many do not have these skills, we can teach them explicitly in the course. Example 19 shows map-reading skills taught alongside information about physical features of Africa. (The size of the pages has been reduced so that you can see both together.)

EXAMPLE 19: From 'Social Studies II: 1 Africa: the land and the people', Lesotho Distance Teaching Centre/National Teacher Training College, Maseru, Lesotho, pp.12-13

LESSON TWO - LAND AND WATER FORMS

LAND FORMS

In Lesson One you learned that Africa's large size means that there are many different environments and resources. It also means that there are many different land forms. The map below shows the main land forms of Africa.



On the left hand side you will find the key to the map. The key tells us that there are five different land forms shown on the map.

The top box of the key is white. It is labelled "plain". A plain is a large stretch of flat land. Look at the map. Find the areas that are white. These are the plains of Africa.

Now look at the next box. It has many dots inside it. This box shows you the areas of Africa that are desert. Can you find the dotted areas on the map? Now you know where the deserts are found. The northern part of Africa is mostly desert. This desert is called the Sahara Desert. Because the Sahara Desert is so difficult to cross it forms a dividing point between northern Africa and the rest of the continent. That is why the rest of Africa is often called Africa south of the Sahara.

The third box is lightly shaded and shows the hilly upland and plateau area. A plateau is a large stretch of level land much higher than the land around it. This land form covers most of the continent south of the Sahara. Because most of Africa is made up of plateau land Africa is called the "Plateau Continent". No other continent has so much plateau land.

The last box is black. This shows the mountain areas of Africa. There are not many of them, so they should be easy to find on the map. Look first at the southern area of Africa. You can see the black area at the very bottom of the map. These are the mountains of South Africa. Put your finger on these mountains. Now move your your finger a few centimetres up and to the right. Do you see the next mountain area? This is Lesotho. There are other large mountain areas in northern and eastern Africa.

Fill in the missing words:

The largest land form in northern Africa is 1. _____.

Africa has more 2. _____ land than any other type of land.

The 3. _____ Desert forms the dividing line between

northern Africa and Africa 4. _____ of the Sahara.

The last land form shown on the map is the escarpment. It is shown by the symbol ⌒. An escarpment is a long cliff on the side of the mountain. Find the mountain area that is Lesotho. There is an escarpment which runs from South Africa along the Lesotho border and back into South Africa. This is the Drakensberg Escarpment.

EXERCISE 1

Pick out the following features in Example 19. Notice how they are introduced.

1. **The explanation of the key**
2. **The identification of the students own country**
3. **Explanations of technical terms**
4. **A comprehension exercise**

(5 minutes)

Comment

The introduction to map reading is done extremely well in this example. Help is given efficiently but unobtrusively. The style is quite different from a normal textbook, where the teacher would be expected to provide the explanations.

Sometimes major study skills such as map reading are covered in an appendix to a course book or a special short booklet.

Example 20 shows further direct guidance on approaches to a text. This time, it is from an introductory course in social science. It helps students with technical vocabulary. What study skills does it assume students have?

The other two sources of difficulty are:

- abstract language generally;
- words used only in social science or with specific 'social science' meanings.

What can you do about these two sources of difficulty?

The first thing you can do is to get into the habit of substituting your own meaning for any difficult phrases you meet. Otherwise you'll tie yourself up in knots looking up every other word! To take an example from Halsey. The sense of the passage should help you to work out that 'matrilocal matriarchies' means something like 'mother-centred homes' or 'communities in which the mother is the main focus'. So first try to work out for yourself what the difficult words mean.

The next think you can do with difficult language is to use a dictionary. But use it selectively and only after the first strategy fails. I had a friend who used to look up every word about which he was slightly unsure; this meant that he never did much reading. A good dictionary, such as the *Concise Oxford* or *Chambers Twentieth Century*, will help with many words you will meet – words you will meet not only in social science but in abstract writing generally (e.g. in the editorials of 'quality' newspapers).

SAQ 6: Find a reasonable dictionary. Look up

- matrilocal
- matriarchy
- homogeneous.

These are relatively straightforward to find in my dictionary (*Chambers's*) though 'homogeneous' took a bit of uncovering (one of many entries under 'homo').

Intelligent, purposeful use of a dictionary can help with words like this.

EXAMPLE 20: From 'Preparing for Social Science', National Extension College, Cambridge, UK, 1981, p.37

Comment

The writer assumes that the students have access to a dictionary and can make 'intelligent, purposeful use' of it. The short exercise is in fact a reminder that dictionaries are a useful aid to developing vocabulary, but it assumes that the students already have some skill in using dictionaries. The students are treated as more independent than those in the previous example.

In both these examples, the course writers were trying to make sure students understood material presented to them; one taught them to read a map, the other was concerned with understanding a text. In both cases the writers drew attention to difficulties.

3. Indirect approaches

You can encourage students to develop study skills without making the students aware that you are doing this. If you think they need help picking out main points, you can make sure such points are underlined or summarised separately. If they need to develop expertise in drawing diagrams, you can make sure diagrams in the text provide suitable models for them to copy, even if this means that the printed drawings lack polish. Example 21 presents a further idea. Read it carefully, before going through the comments.

3.8 DIFFERENCE BETWEEN FORCE AND PRESSURE

Most people do not really distinguish between the terms force and pressure, but, for the scientist, these words have very different meanings and are not interchangeable. When you sit down your weight causes a force to be exerted on the object you sit on and in order to support you the object pushes back. The total 'push-back' force is always the same, whatever you sit on, but it is more comfortable sitting on a cushion than on a hard, flat seat, or maybe on the top rail of a fence. The difference in the general effect of the force is due to the way in which it is spread or concentrated. A cushion moulds to your shape and the total force is spread over a large area – so you change shape very little. On a hard seat you have to change shape to spread the load and still don't spread it as much as the cushion does. The result is a greater pressure and less comfort. Most people sleep on a mattress so that their weight spreads over a large area, but the Indian fakir is reputed to sleep on the points of a bed of nails which concentrate the weight on a small total area and produce high pressures.

A simple little device like a drawing-pin involves this difference between force and pressure in a straightforward way. Whatever force is needed to make the pin penetrate has to be supplied by your thumb. But you do need a large pressure at the other end to ensure that the surface is penetrated easily. So the two ends of the drawing-pin are made to have very different areas. The thumb end has a large area so that the force is well spread out; not much force to any particular bit of the area. The penetrating end has a very small area so that all the force is concentrated on the very small piece.

These examples should be sufficient to indicate that pressure involves an area as well as the size of a force. Low pressure is produced by spreading a force over a large area, high pressure by concentrating a force on a very small area.

Pressure is measured by finding how much force is being exerted on each unit of area. If the area is measured in square centimetres (cm^2), then pressure is force on each cm^2. (Assuming that the force is spread evenly over the whole area.)

$$\text{Pressure} = \frac{\text{force}}{\text{area on which force acts}}$$

EXAMPLE 21: From 'The World of Science', National Extension College, Cambridge, UK, 1978, Volume 1, p.80

Comment

This writer assumes that students will find the distinction between force

and pressure difficult. He has therefore presented an explanation which leads very gently to the formula, and leaves no room for misunderstanding. The passage is deceptively simple. It is worth examining what the writer has done to ensure that readers can pick out the main points:

* there is a clear heading and an explicit first sentence
* there are many examples
* all the examples are easy to understand
* all the examples are relevant, and connect well with each other
* the third paragraph presents an explicit statement of what the examples show. It is also short so that it stands out
* the formula, when it comes, is not forbidding

The passage deliberately helps the student to learn the new concept. The writer has selected and ordered material so that the concept is not only clear but also easy to remember.

4. Alternative ways of presenting material

This unit so far has argued that, since students approach studying in different ways and with different skills, we should include in our texts training in study skills. In addition, we can vary the way we present material, to suit the experience or taste of different student groups.

EXERCISE 2

The last example explained the difference between force and pressure in a prose description. Can you think of any other ways of presenting the topic in print, using the same examples? Note down some ideas.

(5 minutes)

Comment

You could use pictures or diagrams, or you could have a story about a fakir. These light approaches might be suitable for less advanced students or for children. You could present a series of problems - why do we sleep on mattresses and not beds of nails? - so that students work out the differences for themselves. That approach might suit more advanced, independent students.

There are always several possible ways of presenting the same information. Remind writers of this, suggest possibilities, and choose between them, bearing in mind the kind of students you are aiming to teach.

Example 22 shows how a lively presentation can lighten a potentially dull topic. It is from a lower secondary-level correspondence course in Commerce for young adults from Papua New Guinea. The meaning of value is presented through a story and with comments by a cartoon character.

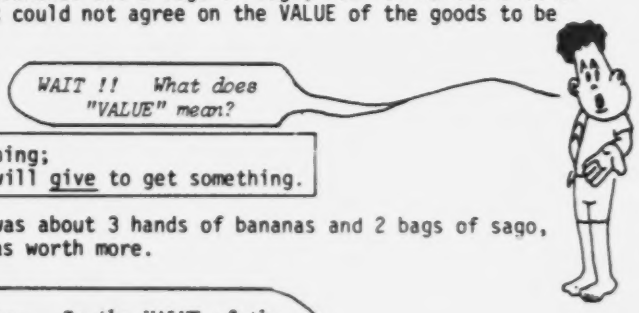
COMMERCE 32 UNIT 1

LESSON 10

Do you remember our village on the Sepik River? Here is another story.

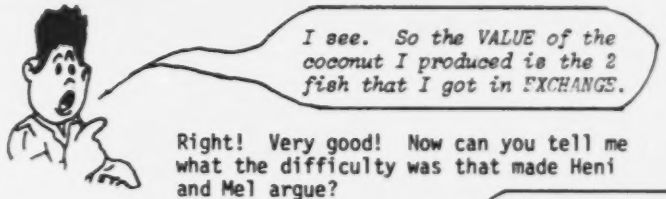
One day Doby's family came to see Kano's family. Doby's family wanted food, so they brought some clay pots to trade (barter). Doby's wife, Mel, asked Heni how much food she would give her for one of the pots.

It was a very big pot and Heni liked it very much. However, Heni did not want to give Mel too much of her produce. This made them argue for a long time - Heni wanted to give 3 hands of bananas and 2 bags of sago, but Mel wanted another bag of sago as well. They just could not agree on the VALUE of the goods to be bartered.

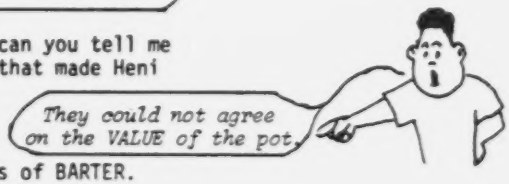


VALUE means the worth of something;
how much a person will give to get something.

To Heni, the VALUE of the pot was about 3 hands of bananas and 2 bags of sago, but Mel thought that the pot was worth more.



Right! Very good! Now can you tell me what the difficulty was that made Heni and Mel argue?



That's right! This is one of the problems of BARTER.

EXAMPLE 22: From 'Commerce Grade 7', College of External Studies, Konedobu, Papua New Guinea, 1979, Unit 1, p.32

5. Some problems

How do you decide what help students need with study skills? The best guidance comes from reports from students themselves concerning their problems. You can, however, help writers to identify potential difficulties by referring them to their experience of teaching the subject in a class. They may remember incidents when students asked for help. You can also assist by imagining yourself as a student and picking out points where you might have difficulty interpreting the material.

Another difficulty is to decide on the starting point for teaching study skills. It would be unrealistic to design every course as if all students had no experience of study. Writers must decide what competencies they expect the average student at a particular level to have, must teach new skills, and must include revision of some of the more basic skills, to compensate for students' insecurity and rustiness. Adult distant students tend to lack confidence in their abilities, and this can lead to a cautious, restricted approach to study.

What about the below-average student? Writers ought to provide sufficient guidance for those who can struggle through. Perhaps you can encourage writers to recall one particular slow but steady student they have taught, and incorporate in their units the study advice they gave that person. There will always be a few students who are unable to cope, and the writer should not be expected to allow for them. A course is set at a particular level, and those who cannot manage have to be identified by tutors or counsellors, and directed to courses at a more suitable level.

Some courses, in areas like community education, are open to those with very mixed educational backgrounds. Such courses often have a strong emphasis on group study and discussion, so that dependence on print is much reduced.

Summary

In this unit we have considered problems students may have in studying printed material. They may fail to make full use of a course if the text gives insufficient advice or no help with study skills, or the material is presented in a way which is of restricted appeal.

I have suggested that you should:

1. Alert writers to the need for guidance on studying.

2. Help identify the difficulties students might have, using the writer's teaching experience, reports from students and your own ideas.

3. Help identify particular points in the unit where students might have problems.

4. Suggest to the writer ways in which he or she might offer guidance, including the direct and indirect teaching of study skills, and alternative teaching approaches.

ASSIGNMENT F

For this assignment you will again need a course unit. You can use the one you chose for the last assignment, or, if you prefer, you can choose a different unit.

Read through the unit and complete the following tasks:

1. Make a list of the skills students will need to develop to make good use of the material.

2. Pick out any points in the unit where advice is given on study skills.

3. Pick out points where advice is lacking.

4. Suggest how that advice might be given.

You may find it helpful to work on your unit with a colleague, another editor or a course writer. You should in any case consult a writer or a teacher of the subject you have chosen when you have completed the exercise. Explain what you have done, and discuss your ideas together.

If possible, you could discuss your suggestions with a student on the course.

The whole assignment will probably take you about two hours. If the unit you have chosen is lengthy, limit yourself to studying part of it.

Unit 8 : Judging the reading level

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Introduction

Much of an editor's time is spent working on language, omitting, changing and adding words. Attention to language can turn an unattractive, difficult text into a clear, easy-to-read one. How can we tell that a text is too difficult? Unit 8 explains how to assess reading levels. What makes a text difficult or easy? In Unit 9 we shall consider changes to make in both language and style.

If you ask several teachers to assess the level of a text, you will get several different answers. We are all unreliable judges of the difficulty of written material. Readability tests can help us assess texts.

When you have completed this unit, you will be able to:

* prepare, administer and score two kinds of readability test;
* assess the significance of the results;
* describe the functions of each test;
* explain the uses and limitations of readability tests.

The unit introduces two tests, the Cloze procedure and the Fog Index. Many others are available, which you may already know, and prefer to use. All have limitations as well as uses, and these are discussed. The unit will take about 1 hour, and the assignment 45 minutes. Information about the educational background of your students will be helpful for the assignment.

Units 8 and 9 refer to the English language throughout. If you edit material in another language, try to work out how each point relates to that language. If you edit material in English for people who use it as a second language, note that, wherever a potential difficulty occurs, it will be more acute for second-language readers.

1. Difficult text

When we have difficulty with reading, we tend to blame ourselves for not concentrating. Very often, the fault is actually in the text itself. The exercise that follows will demonstrate this.

EXERCISE 1

The passage below is printed with several words missing. Write one word only in each of the spaces in the text. Guess the word that you think is in the complete text. Read the passage as often as you like and spend as long as you want on the exercise. When you have done as much as you can, look at the answers and count how many you have right.

What kind of distance-teaching institution do we need?

The strengths and weaknesses of distance teaching, which we have discussed above, to a large extent determine the nature of an institution set up to teach at a distance. It must find ways (1) combining the three approaches (2) print, broadcasting and occasional (3) -to-face tuition, which (4) its staple methods, into (5) effective teaching system. It (6) comes into being in (7) to provide for rapid (8) of educational opportunity at (9) cost. As far as (10) , it has to achieve (11) by using existing media, (12) and personnel. Its students (13) usually scattered and part-(14) . Often its teachers - its (15) , its tutors, its broadcasters - (16) part-time too. It (17) its students through the (18) -time use of other (19) .

For this reason an (20) feature of most distance-(21) institutions is their organised (22) with other organisations: broadcasting (23) , government departments, schools, colleges, (24) services. These can vary from (25) dependency on others, through (26) shared use of resources, (27) the provision of specified (28) to them. But very (29) distance-teaching agencies are (30) self-contained. Decisions about (31) degree of interdependence or (32) that they maintain in (33) various aspects of their (34) are vital for their (35) , and must be constantly (36) .

Linked to these decisions (37) others about the balance (38) the employment of full-(39) and part-time staff (40) write and teach the (41) programmes. There are economic (42) sometimes quality advantages to (43) use of part-timers; (44) are control and speed (45) in favour of full-(46) . The decisions any institution (47) vary from programme to (48) , from department to department (49) from time to time. They are - or should be - made in the light of educational quality, resources available and expected student numbers.

1.	of	2.	of
3.	face	4.	are
5.	an	6.	usually
7.	order	8.	expansion
9.	minimum	10.	possible
11.	this	12.	facilities
13.	are	14.	time
15.	writers	16.	are
17.	reaches	18.	part
19.	institutions	20.	important
21.	teaching	22.	relationships
23.	bodies	24.	extension
25.	total	26.	the
27.	to	28.	services
29.	few	30.	wholly
31.	the	32.	independence
33.	the	34.	work
35.	administrators	36.	reviewed
37.	are	38.	between
39.	time	40.	to
41.	institution's	42.	and
43.	the	44.	there
45.	arguments	46.	timers
47.	takes	48.	programme
49.	and		

Comment

Did you find that exercise difficult? Most people find it very demanding. I will explain your score shortly. The test you have just done is called a Cloze test. It is a reliable way of predicting whether readers will understand the complete text from which extracts are taken. It can be used in other languages besides English.

The test works on a simple principle. In a piece of text, it is groups of words that convey the meaning. When we read, we actually look at words in groups rather than individually. If some words are left out, we can often guess what they are from the context, from the meaning of the rest of the sentence. In a Cloze test, words are omitted on a regular basis. If the passage is one which, when written in full, the reader could understand easily, then there is a high chance he or she will guess the correct words. If the language of the passage is too difficult, the meaning will elude the reader, and he or she will make numerous mistakes.

Your score in the exercise was probably over 50%. (Do not worry if you have a lower score; sometimes an individual gets a freak score on a single test.) What does that score mean? It indicates that you would read the complete text with understanding.

I made my prediction of your score for two reasons. First, I selected a passage whose subject matter was likely to interest you. (It is from IEC's manual The Administration of Distance Teaching Institutions). Second, I have done a further analysis of the text which suggests that it is only suitable for skilled readers. (I shall explain this analysis later.) So I deliberately selected a text with a reading level you would find manageable but not too easy.

This is the scoring system:

over 50% - reader understands
35 - 50% - reader needs some help (sometimes called 'instructional level')
under 35% - frustration

These are rough and ready measures, but quite adequate. Nobody would expect to guess every word correctly, but if a reader has over half right, he or she is struggling but with some help will make sense of it. With less than a third right, the passage is too difficult and the reader cannot make any good sense of it.

2. Levels of difficulty

I suggested that the text in Exercise 1 was only suitable for a skilled reader. I was implying the text was difficult. What makes it difficult? In English, there are two factors which have a profound effect: vocabulary and sentence structure. The more uncommon words and complex sentences there are in a passage, the more difficult it will be to understand. The passage in the exercise contains several long words; about one in five of the words is three or more syllables in length. The sentences are complex, too; most of them are about twenty words long.

The difficulty lies within the passage. People, however, vary in their ability to deal with difficult passages. Those who have reached an advanced level in their studies can usually make sense of difficult texts, although they may have to concentrate hard. Those with less experience of study may have a restricted vocabulary and lack the skill to follow complicated syntax. Poor readers will be quite unable to follow the meaning of a difficult text.

We therefore need to match the level of difficulty of texts to the reading ability of our students. To do this we need some way of classifying levels of text and levels of readers. This is rather difficult as most existing scales have been developed for schoolchildren, while most of you will be working with adults. I suggest a classification below which is not perfect, but has been found useful by editors and writers I have worked with.

	level of text	level of reader
1.	very easy	poor (literate, but with very little primary schooling, or its equivalent)
2.	easy	average (has several years primary schooling, or its equivalent)
3.	quite difficult	good (has studied at secondary level or its equivalent)
4.	difficult	advanced (has some post-secondary or higher education or its equivalent)

Can you imagine what it feels like to be an average reader struggling with a difficult text? It is important to make sure that the level of the text matches the level of the student. Cloze tests are a useful way to

discover if you have a good match, and we will now discuss when and how you could use them.

3. When to use a Cloze test

There are three ways you may find Cloze tests useful.

a. General information: your institution may lack information about the reading abilities of its students, and research using Cloze tests can fill this gap. Select several passages at different levels and grade them for difficulty (see section 8 below). Identify a number of students, randomly selected so they are representative of your student body. Each student completes one test, an equal number completing tests at each level. An analysis of the results should suggest the level that is most suitable for your students.

b. Assessing a course: you may want to find out whether a particular course - a new one or an existing one - is at a suitable reading level. You can ask students to complete tests on a number of passages. You will probably only use Cloze tests for this purpose when there is some doubt about a course, as it would be too laborious to conduct the tests as a matter of routine.

c. Training writers: you can use a Cloze test to demonstrate to a writer that students will have reading difficulties. Writers seldom believe that what they have written is too difficult, and the results of Cloze tests can be a startling revelation.

4. How to prepare and use a Cloze test

First, select three passages from different parts of the text. The passages should be about 250 words long and should, as far as possible, be continuous prose. Each passage should be able to stand on its own, and the subject of it should be reasonably familiar and interesting to the readers. Avoid passages that contain many proper names.

Give each passage a title. Then delete words regularly, leaving the first and last sentences complete. Count words joined by a hyphen as two words. Surprisingly, it does not matter exactly how often you make the deletions, but every fifth word is a common choice. Delete every seventh word for second-language readers. Whatever you choose, the deletions must be regular.

Have the passage retyped with equal spaces where a word is missing. Make sure the spaces are big enough to accommodate handwriting. Give each space a number, to make checking easy.

Find several students to do the test. They should be similar in background, education and interests to your target audience. You need about 10 readers for each passage. Give the instructions for the test very carefully. Emphasise that you are testing the passage and not the readers. Explain that they must write one, and only one, word in each space, and point out that they can take as long as they like.

I have already explained how to score. You may have wondered why I only allowed the same word as that in the original and no synonyms. It makes marking quicker, and avoids arguments over whether one word is identical in meaning to another. Allowing synonyms makes very little difference to

the score. If you prefer, you may allow them in your tests.

The Cloze test can be used in other languages. If you want to use it, you will have to seek local advice on the recommended rate of deletions.

5. The limits of its usefulness

A Cloze test provides reliable guidance on whether students will follow the meaning of a text. There are, however, several drawbacks:

a. You need to find suitable readers to do the test. This can be difficult and time-consuming.

b. Preparing, administering and scoring the tests involves a good deal of work. Sometimes that work is out of proportion with the value of the results.

c. Students may get discouraged if they find a test difficult. There is a risk that such students will abandon their studies.

These drawbacks should not deter you from using Cloze tests. They suggest, however, that we also need tests of a different kind which do not display these disadvantages. The next sections of the unit introduce one such test.

6. Applying a readability formula

A readability formula allows you to calculate a score which indicates the readability level of a text.

A formula checks text in a mechanical way. It does not offer any guarantee that text will be understood, but it gives rough and ready guidance on whether it is at the right level.

Many formulae have been developed and several are in common use. This section introduces the Fog Index, but if you already know and use a different formula, there is no need to change. The Fog Index is no more reliable than several other formulae; I prefer it because it is remarkably quick to apply. The version I use contains some adaptations and is called the Modified Fog Index (MFI for short).

Like most other formulae, the MFI looks at the crucial variables in English vocabulary and sentence structure. In order to measure the difficulty of vocabulary, we count all words of three or more syllables. Most uncommon words in English are long, so this is good enough as a measure. In order to estimate the difficulty of sentence structure, we find the average length of sentences in a passage. Long sentences are likely to be more complex and difficult than short ones.

We shall now calculate the readability score of the text you used for the Cloze test.

EXERCISE 2

Here is the text. You do not even need to read it through. Follow the instructions below.

The strengths and weaknesses of distance teaching, which we have discussed above, to a large extent determine the nature of an institution set up to teach at a distance. It must find ways of combining the three approaches of print, broadcasting and occasional face-to-face tuition, which are its staple methods, into an effective teaching system. It usually comes into being in order to provide for rapid expansion of educational opportunity at minimum cost. As far as possible, it has to achieve this by using existing media, facilities and personnel. Its students are usually scattered and part-time. Often its teachers - its writers, its tutors, its broadcasters - are part-time too. It reaches its students through the part-time use of other institutions.

1. Count 100 words from the beginning of the passage. Count words joined by a hyphen as two words. Put a vertical line after the 100th word to mark it.

2. Find the average length of complete sentences in the text. The quickest way to do this is as follows:

a. Find the last full stop before the 100th word. How many complete sentences occur up to this full stop?

_____

b. Count the number of words between the full stop and the 100th word. Subtract this number from 100, and you will know the total words in complete sentences.

c. Divide this total by the total number of complete sentences, and you will have average sentence length.

_____

3. Find the total number of words of three or more syllables. Do this by underlining each word and then counting the total, up to the 100th word. We will call these 'difficult words'.

Write the total here:

_____

4. Now calculate the formula:

$$\frac{2\,(ASL + DW)}{5} + 5$$

Where ASL = average sentence length
and DW = total number of difficult words.

Write the answer here:

_____

This is the readability score.

(10 minutes)

Answer

The strengths and weaknesses of distance teaching, which we have discussed above, to a large extent determine the nature of an institution set up to teach at a distance. It must find ways of combining the three approaches of print, broadcasting and occasional face-to-face tuition, which are its staple methods, into an effective teaching system. It usually comes into being in order to provide for rapid expansion of educational opportunity at minimum cost. As far as possible, it has to achieve this by using existing media, facilities and personnel. Its students are usually scattered and part-time. Often | its teachers - its writers, its tutors, its broadcasters - are part-time too. It reaches its students through the part-time use of other institutions.

1. The 100th word is 'Often'.

2. a. complete sentences : 5

   b. total words in complete sentences : 99

   c. average sentence length : 99/5 = 19.8

3. Words of 3 or more syllables : 20

4. $$\frac{2\,(19.8 + 20)}{5} + 5$$

   $$= \frac{2\,(39.8)}{5} + 5$$

   $$= \frac{79.6}{5} + 5$$

   $$= 15.9 + 5$$

   $$= 20.9$$ This is the readability score.

Comment

If your answer is slightly different from mine, do not worry. We shall see shortly the reasons for this. If it was very wrong, check your work against my answer carefully. I have set down each stage in my calculation to help you. Once you understand how to do this test, it will take you only 5 minutes each time.

7. What does the score mean?

You will generally arrive at a score between 10 and 30. You can interpret the scores as follows, using the levels defined in section 2.

12 and under	: 1	very easy
13-16	: 2	easy
17-20	: 3	quite difficult
over 20	: 4	difficult

You will see now that our text is a difficult one.

The score on one passage alone is, however, of doubtful value. To get a reasonably reliable score, you should check at least three passages from different parts of a text, and find the average score. The figure you arrive at gives you rough guidance on the level. As there are certain difficulties in counting, there are often two or three slightly different possible scores for a passage. But, more importantly, the score only means that a text is likely to be at the right level for a group of students, not that it definitely is. It is only a mechanical measure and does not consider whether students will be able to follow the meaning. Provided that you are aware of these limitations, you will find the formula useful.

8. When to use the Modified Fog Index

You can use the formula frequently during the development of a course, and you can also show the writer how to use it. It will quickly indicate whether a text is unsuitably difficult, and will provide a check that a writer is sustaining a desired level. You can also use the test to establish the level of any passages you use for Cloze testing.

The test may not be of much use to you in languages other than English, although I have heard of cases where it has been used with apparently satisfactory results.

9. How to apply the Modified Fog Index

You already know the basic procedure, but there are a few minor points to consider.

a. counting words : count abbreviations as a single word; count numbers written in figures such as 2000, as a single word; count a repeated word each time it occurs.

b. sentence length : a sentence divided into parts by a colon (:) or semi-colon (;) remains a single sentence and, however long, should be counted as one sentence.

c. difficult words : if in doubt about the number of syllables, say the word to yourself. Pronunciation varies, so scores inevitably vary slightly. Most people say 'different' as two syllables, not three. I counted 'media' in our passage as three syllables. You might have it as two. This makes very little difference to the score.

d. There are several versions of the Fog Index. If you know and prefer another version, use it. Do not, however, mix together different versions.

10. How useful are readability tests?

Since it is unsatisfactory to guess the reading level of texts, we need a

reliable means of diagnosis. The Cloze test is the most reliable, because it checks whether students can understand a text. It is, however, of limited use in a busy course production department as it is rather laborious to apply. Formulae are less reliable as they provide no check on understanding, but they are quick and easy to apply and therefore worth using judiciously.

There is one problem that neither kind of test addresses. Distance-teaching texts contain much that is not continuous prose, and readability tests can only be used with prose. We need further checks on the language of lists, instructions, exercises, and on the clarity of presentation.

Finally, tests indicate whether a text is at about the right level or at the wrong level. If the level is wrong, the test does not tell you what is wrong with the language, nor what to do about it. That is the subject of our next unit.

Summary

This unit has shown you how to use a Cloze test and the Modified Fog Index to assess whether texts are at the right reading level for your students.

ASSIGNMENT G

This is a short assignment, to provide more practice in using the Modified Fog Index. Simply select three passages from your own course units and calculate the readability score. This should not take you more than three-quarters of an hour. Do the scores you get indicate that the texts are easy enough for your students? Jot down a few comments on the scores; you will use these in your next assignment.

Unit 9 : Editing the language

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Introduction

In the last unit we discovered that the language in texts is often too difficult. What may cause difficulties, and how can we make improvements?

At the end of this unit you will be able to:

* identify vocabulary and syntax items which may increase the difficulty of a text;
* identify cases where a prose presentation could be replaced;
* enumerate inaccuracies which commonly occur in writing;
* list guidelines on style and balance in a text.

Using the insights you have gained, you will then be able to:

* make minor amendments to a text;
* write a simpler version of a text;
* advise a writer how to write more simply and clearly.

In this unit we consider a number of aspects of language and style. Complicated language makes a text difficult to understand; inappropriate style makes it unattractive and therefore difficult to read with attention.

You will find some grammatical terms in this unit. You may find it helpful to have by you a dictionary or a reference grammar. The unit will take 2 or 3 hours to complete, and the assignment will take about 1 hour.

1. What makes a text difficult?

Difficult vocabulary and complex sentence structure are the main sources of difficulty. We will now analyse a passage to identify these and other difficulties. Read the passage in Example 23 quite slowly, and then do Exercise 1.

Putting together some of the ideas in the unit

If an object is thrown up into the air it eventually comes down again – whatever goes up must come down. This has been superseded in recent years with the advent of space probes, but is still generally true. If the object could be thrown vertically upwards, it would return to the spot from which it was thrown. Let us suppose that this happens and also that there is no friction with the air to take away any energy from the moving object. This, once more, is taking a simplified or ideal situation to make it easier to work out what happens during the flight.

The object starts by moving at some velocity which decreases as it rises, stops for an instant, and then accelerates downwards so that it will be travelling quite fast again when it reaches its starting point. The slowing down and eventual falling back is explained as being due to gravity, *i.e.* the Earth is pulling downwards on the object all the time. This means that the object has a downward acceleration, equal to 10 m s^{-2}, all the time it is moving. While moving upwards we would probably prefer to say that the object was decelerating.

Another aspect of this situation is seen if we consider the changes of energy which take place. As the object rises, its speed decreases and so the amount of kinetic energy decreases and eventually becomes zero. The amount of kinetic energy then increases again as the object speeds up throughout its downward movement. It seems fairly obvious that the energy is stored in some form and then changed back again to kinetic energy. While it is slowing, and losing kinetic energy, the object is, of course, getting higher above the surface of the earth and the stored energy is said to be in the form of potential energy. Whenever an object is moved farther from the centre of the earth its potential energy increases at the expense of some other type of energy. When the object moves back, its potential energy is converted into other types of energy. The kinetic energy with which the object is provided at the start of its movement is gradually turned into potential energy and then changes gradually back again.

EXAMPLE 23: From 'The World of Science', National Extension College, Cambridge, UK, 1978, Volume 1, p.51

EXERCISE 1

The example is from a pre-university science course. The MFI for the first hundred words is 17. The passage is therefore at an acceptable level, but the average sentence length is 20.5, quite long. Let us see if the language gives cause for concern. Try to answer the questions below.

1. Underline all the terms which you think are technical ones. Can you see any that the writer has explained in the text? Are there any which are not explained?

2. The sentence which starts in line 7 is rather long. Underline all the finite verbs. How many are there? Does this suggest any obvious problem in the sentence? Can you see an ambiguous phrase in the sentence?

3. The last sentence, starting at the end of line 20, is particularly long, and that could cause comprehension difficulties. Underline all the finite verbs in the sentence. Do you notice anything awkward about the verbs? Can you suggest any change?

4. Read the sentence that starts in line 5. What is the subject of this sentence? Can you say why the sentence is awkward?

5. In line 2, can you identify a word that is used wrongly?

6. In line 15, can you find a word used correctly but unfortunately placed?

7. In line 11, what do the words 'while moving upwards' relate to? Comment on their position.

8. Read the two sentences in lines 18-20, starting 'Whenever an object...' Which sentence do you think is clearer, and why? Which is better punctuated, and how?

9. Read the whole passage again. Decide on one piece of advice to give to the writer.

(20 minutes)

Comment

1. You might have underlined the following: friction, energy, velocity, gravity, kinetic energy, potential energy. These are mostly words in common use, but used here with a precise technical meaning. You might

have included a few more, such as 'decelerate'. In lines 10-11 the writer explains gravity, and in line 18 he gives a description of potential energy. No other terms are explained; an editor would have to check that they are explained elsewhere.

2. The sentence has seven finite verbs:

> 'The object starts by moving at some velocity which decreases as it rises, stops for an instant, and then accelerates downwards so that it will be travelling quite fast again when it reaches its starting point.'

There are far too many clauses for one sentence. It is difficult to take in all the points. I would make two sentences, starting the second when the object begins its descent. The ambiguity is in the second clause 'which decreases'. What is the subject of this clause? What is the subject of all the others? The subject of the 'which' clause is 'velocity'; in all the others it is 'the object'. The use of 'which' is confusing. It is often difficult to follow sentences with relative clauses in the middle of them.

3. The verbs here are 'is provided', 'is ... turned' and 'changes'. The two passive verbs increase the complexity of the sentence. I would simplify the sentence by making them active.

4. The subject is 'This', but what does 'This' refer to? The whole sentence is vague and indirect. I would reformulate the sentence to make a definite statement. Something like:

> 'Once again, we simplify the situation to help us work out what happens during the flight.'

5. My dictionary gives several meanings for 'supersede'; all of them contain the idea of replacement. The writer is saying that the statement that whatever goes up must come down is still generally true. So a sentence saying the truth has been replaced but is still generally true is nonsense. 'Supersede' is one of a number of words which are commonly misused; you may want to compile a list of these false friends. Most people also spell 'supersede' wrongly, as 'supercede', a word which does not exist.

6. '... the object speeds up throughout its downward movement'; this is simply an unfortunate placing of the word 'up'.

7. The words relate to 'the object' later in the sentence, but their position suggests that we are moving upwards. Poor placing of adverbial phrases is another common error.

8. The second sentence, with its active verb 'moves' is much more punchy and direct. The inclusion of a comma in the second sentence also improves the structure.

9. The main shortcoming of this extract is its indirectness. In particular, the writer uses passive verbs a great deal. My advice would therefore be to use the active rather than the passive as far as possible.

Although we have identified a number of trouble spots in this extract, it is still an intelligble piece of writing. But each of these points will make a small difference to the reader's response to the passage. And when

you add them all up, you can see that the passage is much less readable than it might be. We will now look systematically at problems of different kinds.

2. Vocabulary

There are four common kinds of difficulty with vocabulary.

a. unusual words. Many words familiar to editors and writers, with their good education, will be unknown to a large number of your students. How can you decide which will be familiar to students at a particular level? One way is guesswork. Words that occur more frequently in ordinary speech are more likely to be recognised by poor readers or those with a restricted vocabulary. Look for long words, and replace them if possible by shorter ones with the same meaning. 'Incarnation' can be replaced by 'birth'. Look for abstract words and replace them with concrete, descriptive phrases. For example, you can refer to 'things you must do' instead of 'obligatory tasks'. Another way is to use a learners' dictionary, or word list.

b. technical words. Technical words are of two kinds: subject-specific technical terms, such as the names of bones in biology - 'femur, tibia, fibula' - and ordinary words used with a particular sense, such as 'energy' in physics or 'set' in mathematics. In both cases, the student needs to be taught the meaning of the technical term. Writers usually recognise the need to explain the first kind of term, but they often overlook the second kind. If you think that a word is being used in a technical sense, consult the writer and ask for an explanation to be included. Explanations can be included in the text, in the margin, or in a glossary. Often an explanation alone is not enough. Students may need to practise using a term in an exercise to help them learn it, and they may need some indication about how to pronounce it.

c. misuse of words. It is quite common to come across a word that is wrongly used, like the word 'supersede' in the example above. If you are rigorous in eliminating long and unusual words, you will generally avoid the problem. If you are in any doubt about a word, check in a dictionary.

d. phrasal verbs. In English, compound verbs of a kind known as phrasal verbs are very common. A phrasal verb consists of a simple verb followed by one or more prepositions or adverbs. The two words together have a distinct meaning of their own. Consider the meanings of these phrasal verbs using the verb 'take': 'take after, take in, take off, take out, take over, take up'. In the sentence, 'John took after his mother', it would not be possible to guess the meaning of the phrase 'took after' from knowing either the word 'took' or the word 'after'. Students using English as a second language have particular difficulty with phrasal verbs. It is advisable to use them sparingly. A readability formula is of no help in identifying phrasal verbs, as they usually consist of two common short words.

Example 24 is from a text deliberately written in simple English. It is from a correspondence course for subsistence farmers in Africa. They may have very little formal education. Examine it carefully, then do the exercise which follows.

MAINTAINING CORRECT MOISTURE IN SOIL

55. Too much water will damage the banana plants.
This often occurs during the rainy season.
This excess water must be drained.

The best way to do so is to
open up or clean the drainage canals
which were dug during the land preparation.
(See paragraph 34 of this booklet.)
This will allow the water to flow away.

If there are no drainage canals
or if the canals are not enough,
then dig a few canals
between the rows of bananas.

56. Sometimes **there is not enough water** in the soil
to make your banana plants grow properly.
This happens during the dry season.
During this time, it may be necessary
to irrigate the banana plantation.

To do this,
dig ditches between the rows of bananas.
Lead the water from the stream or pipe
with little dams and ditches
so that the soil in the plantation becomes moist.
Also apply mulching around the banana plants
to keep the moisture in the soil.

EXAMPLE 24: From 'Bananas', Farmer Production Series 203, INADES-formation, Nairobi, Kenya, 1982, p.30

EXERCISE 2

Identify the technical terms in Example 24. Do you think the readers will understand them?

(3 minutes)

Comment

The technical terms I have identified are drainage canal, plantation, mulching. The writer assumes the reader already knows these. Did you notice that in line 7, there is a cross-reference to paragraph 34 for those who are not clear about drainage canals? I believe the readers will understand, but the unit needs a glossary so that they can look up words such as 'mulching' if they forget them.

3. Sentence structure

Avoid sentences which are too long, indefinite, have several negatives or several passive verbs.

a. length. Exercise 1 included an example of a very long sentence, which was difficult to follow. Here is another example:

> 'If you take the managers separately, you then find that although they are both managers they do not carry out the same responsibilities.'

The complexity here is partly due to the number of clauses (4) and the relationship between them. Clauses beginning with 'although', 'unless', 'if' and other words introducing an element of uncertainty or doubt can help cloud the meaning. Aim generally for a sentence length of not more than 20 words, and you will avoid this difficulty.

b. indefiniteness. Impersonal verbs have an air of indefiniteness. Avoid introducing sentences often by 'it'. Make sure that 'this', 'that', 'which' and other relatives are carefully used.

In some subjects, particularly science, it is conventional to use impersonal verbs a great deal. You must use your judgement to decide when to follow this convention.

c. negatives. What do you think this sentence means?

> 'If the light is not green, do not cross the road, unless there is no traffic coming.'

It is not easy to follow. The confusion arises from the conglomeration of negatives. Generally, such sentences can be replaced by positive ones.

d. passive verbs. Science gives many examples of the problems. Compare the description, with passive verbs underlined, with the instructions that follow, with active, direct verbs. The instructions are much easier to follow.

Germination

In order to germinate seeds, some are planted in moist soil. Other seeds are soaked in water for a short while before they are sown. Thus water is absorbed more quickly and germination is faster.

You can germinate seeds in two ways:
1. Plant the seeds in moist soil.
2. Soak the seeds in water for a short while. The seeds will absorb water and germinate faster.

4. How to simplify

Sometimes when you are editing you can replace a difficult word or awkward phrase with another word or phrase. If you make such changes on a script someone else has written you should show that person the changes you have made and seek approval. You can do this by showing the writer the final edited typescript. A change of words may give a subtle change of meaning, or eliminate an important technical term.

Sometimes it is necessary to rewrite complete passages that are at the wrong level of difficulty. The passage in Example 25 is taken from a fifth-year secondary course in biology from Mauritius. For people at that level, is it a clear explanation? Read it carefully.

> How is it that we can say that evolution has occurred? Can we actually see it happen?
>
> Scientists have built up a picture of evolution by collecting together many different pieces of evidence from many different types of studies. Sometimes the evidence is termed DIRECT evidence because we can actually see something - such as when we find the bones of ancient species, but the vast majority of the evidence is INDIRECT - information which suggests that certain changes must have occurred, or that certain species are related or have originated from a common ancestor. For example, when we look at the blood proteins of man and the apes we find that they are similar, while if we compare the blood proteins of a man with the dog we find that they are a lot less similar. Hence this helps us to believe that man is more closely related to the apes than to other mammals like the dog.

EXAMPLE 25: From 'Evolution: Form 5 Supplementary Unit', Mauritius College of the Air, Moka, Mauritius, 1979, p.3

Comment

On the whole, it is very clear, although the second sentence of paragraph two is rather involved.

> EXERCISE 3
>
> Imagine you are explaining the concept of evolution to adults with little education. Rewrite the passage, aiming at an MFI score of between 13 and 16. (The original is 20.)
>
> (30 minutes)

Comment

You can judge for yourself how successful your version is. You will have found that, when you simplify, you have to look first for the meaning, and choose words which express the meaning. Your words may be quite different from the original. There are dangers in crude, mechanical simplification. Very short sentences make a passage jerky and lacking in co-ordination.

5. Training writers to write simply

First, you must persuade the writer that a text may be difficult. If the writer has already drafted some material, try to identify her specific weaknesses. Discuss these, and if necessary use readability tests to demonstrate differences in levels of texts.

Once the writer has accepted the idea of writing clearly and simply, you can work together to improve the material. You can go through it together, concentrating on particular weaknesses. Awareness of the problems will help the writer change her style. You can also encourage her to be self-critical. Here are some guidelines:

- Are paragraphs short and well-ordered?
- Are sentences generally short?
- Are most words short?
- Are new words, eg technical terms, explained?
- Are most sentences positive and direct?
- Is the style friendly?

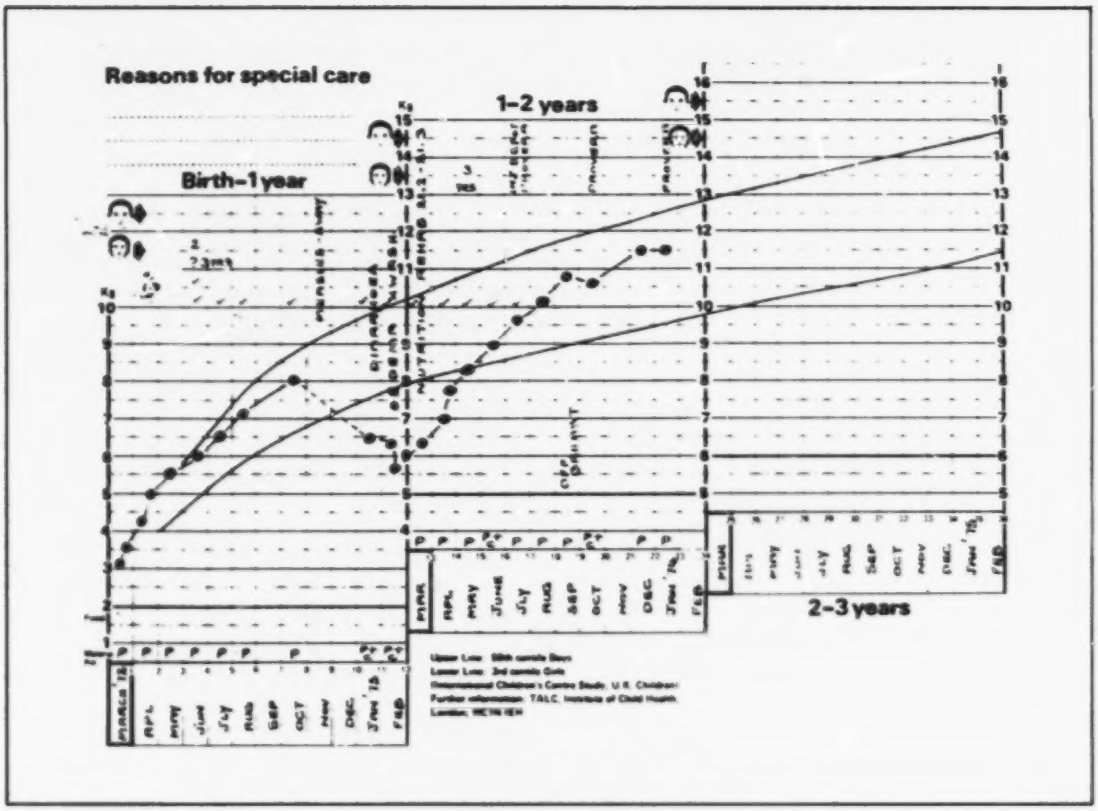
6. When is prose an unsuitable choice?

What is the best way to explain the life cycle of a mosquito? What is the clearest way to present, in sequence, the events of the Second World War? What is the easiest way to show the location of the main towns in Zambia? How would you record the growth of a child? How would you present the times of buses? These are all cases where a graphical format is usually more suitable than continuous prose. Diagrams, lists or time charts, maps, graphs and tables are all useful ways of presenting information which can replace or can complement a prose explanation. Encourage writers to arrange material in lists or charts or to use pictures and diagrams frequently. They add variety and interest to the text, as well as improving the teaching. Always make sure that illustrations are well used. A picture can be wasted if it is not closely related to the text. Every picture or diagram should be numbered, for easy reference, and should usually have a caption or title.

A learner who does not often see pictures may have difficulty in understanding them and relating them to his or her experience. In such cases, the choice and presentation of the subject is most important. The subject should be and look familiar to the reader. You may use pictures, for example, to present ideas on nutrition to mothers of small children. Urban and rural women may buy or grow different kinds of foods and serve them from different containers. Pictures for each group would have to vary accordingly.

Readers may have particular difficulty in interpreting graphs and other similar diagrams. Such formats must be very carefully presented. Take care to choose an appropriate format for the information you intend to communicate.

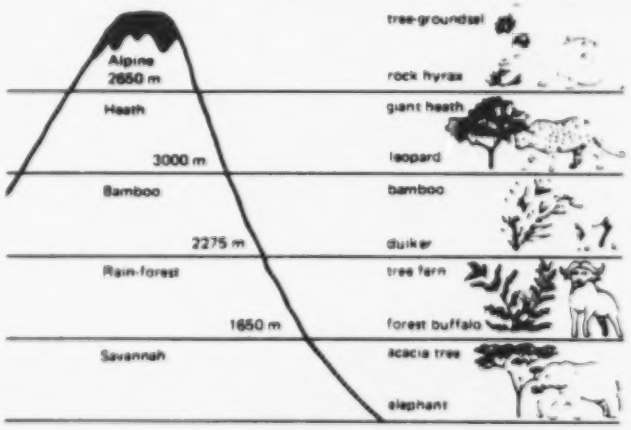
The chart in Example 26 is an infant's weight and growth chart, now widely used all over the world. It shows a child's weight. It is very easy to use and understand, so much so that even an illiterate mother can learn to get some information from it. What makes it so clear?



EXAMPLE 26: Road to Health Chart, TALC, Institute of Child Health, London, UK.

Example 27 is a diagram from an ecology course. Where are leopards found?

Altitude often has the same effect as moving towards the poles. As we rise the temperature drops 1°C per 150 m approximately so that there is a gradual change in the plant. and animal communities. There is a stratified series of environments in this case of microclimates also.



Altitudinal zonation of plants and animals on Mount Kenya. This illustrates how, within a given latitude, the ecosystem which develops will be dependent upon such factors as altitude.

EXAMPLE 27: From 'The Green Earth', National Extension College, Cambridge, UK, p.88

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EXERCISE 4

Compare Examples 26 and 27. Try to explain why Example 26 is so clear, and in contrast note anything unsatisfactory about Example 27.

(10 minutes)

Comment

On the Road to Health Chart, you can see in a moment when the child is poorly, as the weight-line goes off the road. Weights are clearly marked up the side, while dates and ages are given along the bottom and top. There is space on the chart to include information. Although the chart contains a great deal of information, it is easy to use and easy to understand.

Example 27, in contrast, does not include much information. In fact, this lack of information causes me some difficulty. I understand that leopards and giant heath are found above 3000 m, but I do not know whether they occur lower down as well. The diagram gives the impression that certain creatures are only found at certain heights.

The diagram is also badly designed. The horizontal lines are all the same distance apart, while the heights given are not evenly spaced. In addition the alpine zone is given as 2650 m, clearly an error as it is a lower figure than the one below. The distinct bands do not correspond well with the text, which mentions a gradual change in the plant and animal communities. As it stands, the diagram is not much use, and needs reworking to illustrate the text effectively.

7. Common faults and how to spot them

At first, it can be difficult to identify faults in writing. The most common problem is where the overall level of language is too difficult for intended readers. You have to acquire habits of critical reading that help you work out why language is difficult. A good way to do this, although it is time-consuming, is group discussion between writers and editors. Such discussions can result in everyone becoming sensitised to points of difficulty.

You already know that you must watch out for long sentences and long words. You may like to watch out for the following points which are, in my experience, particularly common.

EXERCISE 5

Read the sentences below and see if you can identify the faults before you read the comments that follow.

1. The co-operative movement is completely independent, the government does not provide promotion or supervision.

2. In fact the co-operatives do not want them any intervention by the government in the affairs of the movement being resented as an unwarranted interference.

3. Having bought their shares, the profits should all go to the members.

4. A proportion of the gross surplus is distributed to members as interest on shares.

5. The individual member should keep a careful account of money invested and returns on shares. You should keep a notebook for this.

(5 minutes)

Comment

Each sentence contains a different problem:

1. The comma in this sentence is used wrongly, to replace a full stop. This should be two separate sentences.

2. This sentence is difficult to understand because a comma is missing, after 'them'.

3. The phrase 'having bought their shares' is hanging alone at the beginning of the sentence. Who bought the shares? Watch for sentences starting with '-ing' words, as they are often nonsense.

4. This sentence contains a number of words used in a technical sense: gross, surplus, interest, shares. They need explaining. All technical terms need introducing with a definition or explanation. Writers often forget to do this when they use common words in a technical sense.

5. This example contains two sentences. The second, starting with 'you', indicates that 'you' and 'the individual member' are the same. The first sentence is, therefore, unsatisfactory for distance teaching as it is too formal. Avoid impersonal, 'textbook' language. A second comment concerns the contrast in style between the two sentences. Formal and informal sentences side-by-side make uncomfortable reading.
If you found Exercise 5 difficult, you may like to practise a bit more fault-finding before you go on. Read two or three pages of an unedited text and note any instances of these faults. You will find that you rapidly become more observant with practice, and with an awareness of what to look for.

8. Is the style friendly?

A distance-teaching text must, as far as possible, reflect the way that a

teacher would talk with a learner face-to-face. Example 28 is from a course for unqualified primary school teachers. Is it friendly?

FOOD FOR A HEALTHY NERVOUS SYSTEM

Do you remember what the cytoplasm of cells is made of? Cytoplasm is made of 1. _____ and water.

You know that children must eat protein to build strong bone cells. And you know that protein foods help to build strong muscle cells. Because the nervous system is made of nerve cells, you know that a child needs protein to build a healthy system. A child who does not get enough protein may have trouble learning at school, because his brain did not develop well.

Calcium is also necessary for a healthy nervous system.

Beans, eggs, milk and meat will supply protein and calcium for a healthy nervous system.

ALCOHOL AND THE NERVOUS SYSTEM

Alcoholic drinks like beer, joala, wine, brandy and whiskey, affect the nervous system. You know that this is true, because you have seen how difficult it is for people who are drunk to control their muscles. They cannot walk straight, and they talk in a strange way.

People who drink too much, and keep drinking too much for a long time, may damage their nervous system so much that they will never recover.

They can no longer think properly or make proper decisions.

Remember that alcohol affects your nervous system while you are drinking. Do not try to do anything that requires control - like driving - while you are drinking. And do not drink alcoholic drinks all the time. They can do permanent damage to your nervous system and to other parts of your body.

EXAMPLE 28: From 'Health: 1 Your body and how it works', Lesotho Distance Teaching Centre/National Teacher Training College, Maseru, Lesotho, pp.32-3

EXERCISE 6

What features of Example 28 make it suitable for distance education? Note down a few points.

(5 minutes)

Comment

The friendly style stands out. You probably noted the use of 'you' to address the reader. You may also have noted the questions at the beginning, which helps create a feeling of conversation.

Some people are put off by an openly friendly text. But for every person who is put off, there will be many who appreciate the inviting warmth. Distant students become discouraged far too easily, and any strategy that helps them retain enthusiasm is to be encouraged.

Sometimes, an informal tone is unsuitable, for example when the reader must learn a precise usage for technical terms or must follow detailed instructions. Cultural factors could sometimes lead you to prefer a more formal tone. In countries where teaching is usually very formal, people may find it difficult to take seriously an informal text. If you, or the writers you are working with, feel that this may be the case in your country or context, you would be wise to do a test before acting on your feelings. Show potential students texts in both styles, and see which they prefer. Their response may differ from your expectations.

9. Is the text dull?

We have a saying in England, 'All work and no play makes Jack a dull boy'. All too often, an educational text is, likewise, all work and no play and extremely dry and dull. This can be tolerable in a school textbook which is used in class, but it is disastrous in a distance-teaching text.

You can combat dullness by introducing variety. Make sure that there is variety in the kinds of activities learners are asked to do. These could involve thinking, writing or doing; short exercises or long ones; reading or project work, and so on. Make sure, too, that there is variety in the presentation formats. Pictures and charts can be used as well as prose presentations. Pictures and a good layout of the text can add to the attractiveness of the text.

As for play, exercises can sometimes be in the form of word games or number games. Ideas can be developed through debates or drama, if group work is possible. But one kind of play should be treated with caution: humour. Cartoons and jokes at first sight look like a good way of lightening a text. In fact it is risky to use them. They often do not appeal to adult students, and sometimes even offend them. In some Kenyan correspondence courses, for example, a cartoon drawing of a student was used regularly to illustrate the text. Many of the real students disliked this figure, feeling that it devalued them.

What one person finds funny, the next person does not. In addition, adult students usually take education seriously, and are sensitive about any implication that their teachers do not share their seriousness. Good intentions can misfire. If you want to use cartoons, humorous approaches, or jokes, try your ideas on potential students before going to print.

10. Is the text biased?

In subjects like history and social and political sciences, questions of politics arise. The writer will have her own political opinions, which will show in the way she interprets the material. Usually a writer will draw conclusions from a reasoned consideration of all the evidence, and will leave it to students to draw their own conclusions. If you feel that

material is unbalanced and unacceptably one-sided, you should consult your advisory group.

Other kinds of bias can detract from the text or even make it offensive. These include racial, sexual or religious bias. A writer can also, without realising it, write for urban people and not rural, or for richer people and not poor. It is usually sufficient just to draw these matters to the writer's attention, and changes are not difficult to make.

EXERCISE 7

Here is a suggested home-study timetable from a student's handbook. It is supposed to help them to organise their studies. Can you see any ways in which it is biased?

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
6-7	get up	get up	get up	get up	get up	get up	get up
7-5	at work	at work	at work	at work	at work	study	relax
5-7	study	study	study	study	study	relax	relax
7-8	eat	eat	eat	eat	eat	eat	eat
8-10	study	study	relax	study	study	relax	relax

(5 minutes)

Comment

This is obviously a timetable for someone with a regular job, such as office work. It also assumes that the reader has no home responsibilities: no cooking, no housework, no children to care for. It is a sexist timetable that takes no account of women's needs. It also fails to take account of any religious commitment people may have. In fact, it is implicitly a timetable for Christians, as it gives Sunday as a day of rest. Moslems or Jews are not catered for.

This example demonstrates how easily unintentional bias can enter into a text. We have to make sure that examples and suggestions are sufficiently varied to avoid such problems as far as possible.

Summary

This unit has shown how distance-teaching texts can be more effective if they have:

- clear, simple language
- friendly style
- a variety of presentation formats

We have examined a number of ideas and examples, and you have practised amending and simplifying text. We have also considered how an editor can work productively with a writer to improve language and presentation.

ASSIGNMENT H

For this assignment, return to the three passages that you scored for readability in the last unit. Rewrite them, following the guidance in this unit. Score them again, and then show the passages to a colleague, explain what you have been trying to do, and discuss the results.

Unit 10 : Testing materials

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Introduction

We cannot be sure that a course we develop can be used to teach effectively. It is good practice to test materials. Testing is especially desirable when an institution is new, or when the group of students aimed at is different from usual, or when the kind of course is different. We can either test selected units or sections, or we can run the whole course on a trial basis, usually with a restricted group of students. This second alternative is usually called a pilot.

At the end of the unit you will be able to:

* state some reasons why testing is useful;
* use different methods of testing;
* decide whether to test materials, what to test, and how;
* analyse the results of a test.

If you test something, you must be prepared to change it. If no change is possible, then testing is a waste of time. This unit focusses on useful and usable methods of testing. The key to effective testing is to know why you are doing it. If you know this, then it is relatively easy to decide what to test and how. If, for example, you feel that a lesson is too difficult, you will want to find out whether students understand it.

Writers usually take part in testing, while the editor advises, organises the production of the materials and provides administrative support. Testing should not take place until some editing has been done.

You do not need any specialist knowledge about research methods to do this unit. It will take about 2 hours, and the assignment will take one or two hours.

1. Why test?

In a test, you try out materials before printing by getting students to use them. For testing, they must be typed and duplicated, the test must be administered and the results collected and used. Testing therefore inevitably delays the process of production, as well as adding extra cost. In distance teaching time and money are precious. If we decide to test, we must have a good reason.

There are three main reasons for testing materials.

a. To get guidance on the level or presentation of the text. You may test to find out if the language is at the right level. To do this, you could use the Cloze test, as described in Unit 8. You may also test to find out if the approach to the subject is attractive to the students, if the level of treatment is suitable, if the instructions are understood or if the unit is of manageable length. In short, you may test to find out one or more of a variety of specific things. You will aim to find out about the texts and not the students, although in the process you will probably also learn more about the students.

b. To convince writers about what is wanted. Often an experienced editor is quite good at predicting what kind of text will suit the students. A person writing for the first time may not find the editor's advice convincing. In these circumstances it is useful to test some sample material with students. When the writer sees the students' reaction, then she is usually convinced.

c. To train writers. A test of a sample lesson can be run as part of a writer's training. Through the test, the writer quickly learns about the good and bad points of the material she has written. Testing can thus enrich and shorten a writer's training.

EXERCISE 1

A course writer is writing a course of 20 units, and she is planning to draft one unit a month. She wants you to arrange a test of each unit as it is written. You disagree, and think it will be enough to test two or three sample units only.

Perhaps the course writer is wrong. Can you think of why she may be wrong? Jot down some reasons.

Perhaps the course writer is right. Can you think of some reasons for testing every unit? Jot them down.

(7 minutes)

Comment

Sometimes testing is used as a delaying tactic. A writer or an editor can be worried about moving from ideas into print, and can use testing as a means of putting off the day of final commitment. Such a person may even have a false idea that through repeated testing and rewriting, you can produce perfect course materials. She may have the idea that you can identify every fault by trying out the materials. In fact, you can only check on a limited number of specific features of a text in a test. You must decide in advance what you are looking for. Sometimes you will notice additional points by chance, but you cannot rely on this.

If the editor in the exercise agrees to the writer's plan, what will happen? The writer drafts the first unit, it is tested, and the writer uses the results for rewriting. She will also use the ideas she gets in writing the next unit. By the time three units are tested, she will have a whole collection of ideas and reactions to use in drafting the remaining units. When she gets to Unit 20, will she still be collecting new ideas? Will there be enough ideas to merit the delay and effort involved in testing every lesson? I do not think so. Generally, most points will emerge from testing a few units only. The test of remaining units may only bring out a handful of additional points.

But the writer could be right. If your institution is very new to distance teaching, it could be wise to test the first courses thoroughly. The same applies if the subject is particularly challenging to teach at a distance. Another reason would be if the students are very different from those that you normally teach. In particular, if you are teaching at a distance at a very basic level - teaching newly literate adults, for example - you may need to test everything. Materials for people who find reading difficult must be extremely carefully designed.

Instead of a unit-by-unit test, you can arrange a pilot. To do that, you print a limited number of copies of your text for the first intake. You restrict the intake to a small number of students. You monitor their reactions as they go through the course, and then revise the whole course. If possible, you do not enrol any more students until the course is revised and reprinted, even if there has to be a delay.

2. Who does the test?

You can only test materials if you have some students. In distance education it can be difficult to find students who are comparable to those

who will do the course when it is finished. Twenty or thirty students is usually enough for a test. You can try any of the following.

a. Recruit volunteer correspondence students. Send a letter to students already studying a similar course to ask if they will help with the test.

b. Use a class. Find people studying the same subject, face-to-face. Arrange for them to work through your sample units, either in class but without the teacher's intervention, or as homework.

c. Convene a special group. You may have to form a group from volunteers. You could get a suitable organisation to help you recruit people, or you could look for volunteers in a suitable place. You might go to a clinic for health education or a library for an academic course.

3. Methods of testing

Once you have found your students, you can use any of the following methods of testing.

a. Ask people to work through and write answers on a specially prepared text. The draft unit is typed up ready for duplication, with some additional features. Space should be allowed for all answers to exercises to be written on the text, so you can see what students have done. If you are interested in the time students take to complete, you can leave space for them to write down the time regularly. If you are interested in language level, you can ask them to underline words they do not understand, and so on. You will probably also ask them to complete a written questionnaire.

b. Watching people use materials. People sit together in one room and work through the text. You watch them as they study, occasionally walking round to check what they are doing. You will need an observation checklist (see Example 29). You can note the time people take to complete work and observe when they look puzzled or get stuck. This method is suitable for study groups, where discussion takes place, and can add further insights when students also give individual written responses.

c. Showing people material and asking their opinion. This is a good method if you want to test something specific, particularly visual material. You may want to discover if people understand and like a set of illustrations. You may want to find out which they prefer of two different formats. The best way to find out is to ask them.

d. Discussing the material with students after they have used it. A follow-up discussion can often help clarify points. For example, all students may have written incorrect answers for one exercise. You can find out why by asking them. You may also get deeper insight into their reactions. Students may write comments on questionnaires, saying they find the text 'useful'. Sometimes they are simply being polite, and when you talk to them, you discover that only some bits of it are useful, or even that it was not useful at all. People sometimes express opinions more confidently in a group discussion.

e. Run the whole course as a pilot version. This requires a different arrangement of the text from (a) above. For a pilot, you will

generally have a few hundred students, while for a test you have 20 or 30. In the pilot scheme, you also test a complete course, which may have many units. There is no need to prepare the text with special places for comments and the like. If you did, you would not be able to handle all the data you gathered. Moreover, the students would probably get annoyed and distracted by all the detailed information they had to provide. Instead, you should ask the students to fill in questionnaires regularly, and use these to analyse the material.

f. Getting feedback from tutors. When students complete written assignments as part of the test, you can get reactions from the tutors who mark the assignments, to add to the opinions of the students. You could call a tutors' meeting and discuss the assignment questions one by one, or you could use a written questionnaire.

You may want to use several of these methods of testing together.

4. When, what and how to test

There are two approaches to testing.

a. Routine testing. An institution regularly tests one or two sample units for every new course. Alternatively, each new course is run first on a pilot basis, and the entire course monitored.

b. Occasional testing. Testing takes place only in special circumstances. The institution realises the value of testing, but does not have the need or resources to test regularly.

You would choose to test only if all the following conditions are true:

* You have a good reason
* You have enough time
* You can set up the test with suitable students
* You can act on the results

Testing should be quick and efficient. You should therefore use for your test only as much material as you need to get satisfactory answers to your questions. For example, if you check reading levels with a Cloze test, you need test only 3 passages. You do not test the whole course.

Test only what you need to find out about. If your students are expected to study at their own pace and can take as long as they like, there is no need to ask them detailed questions about timing.

If you do not give your testing a sharp focus, you will collect information which is too vague and general to be useful. At the same time, you will be exploiting the students. It is not right to burden them with extra questions and activities that are of no use to you, especially when many students doing the tests will be volunteers.

How should you prepare for testing? We can summarise the process in a number of steps:

a. Define the purpose of the test
b. Identify the students who will do the test
c. Decide which method or methods of testing to use

d. Prepare the materials. Adapt the draft and prepare questionnaires or checklists as required for the test.

Example 29 shows part of an observation checklist. It was used for a pilot project at a very basic level, teaching English by radio to children in the three lowest grades in primary school in Kenya. Both class teachers, who knew very little English, and children would follow the instructions given on the radio. At this very basic level, detailed feedback on everything was wanted. A team of observers watched classes and filled in checklists for each one of the programmes over 3 years.

This checklist and the other examples in this unit will give you some ideas about developing your own questionnaires. If you want to investigate this topic in more detail, you need to refer to Practical Research in Distance Teaching by Roger Mitton, a manual published by IEC.

EXERCISE 2

Look carefully at the checklist and work out what useful information it might give when completed.

(5 minutes)

Comment

The observer's comments will show both what went well and what went badly. Comments are required on both teachers and children. Where several children make the same mistake, the point probably needs more thorough treatment. When several observers make similar comments, we have useful feedback on the programmes. If only one observer makes a particular comment, we have information only about a particular class.

5. Conducting the test

Usually the writer will conduct the test, but you will generally help with guidance. You could adapt the hints below to pass on.

a. Welcome the students.
b. Introduce yourself and any other observers in the room.
c. Brief the students. Explain to them the purpose of the test, making it very clear that you are testing the materials and not them. Explain to them exactly what they must do. Try to help them to feel relaxed, by treating them as colleagues rather than pupils.

(If you are testing by correspondence, a welcoming letter should cover the three points above.)

EXAMPLE 29: Page of Observation Checklist devised by Kenya Language Arts Project, Kenya Institute of Education, Nairobi, Kenya

28/AB/1 and 31/AB/1-2

Lesson 184 Block B Segment 2 + 4 Description "If" Clauses
emotions, calm, excited, afraid

	Common mistakes	Comments
1. Teacher preparation: Not applicable ( ) (very good — adequate — poor)		
2. Teacher involvement: Not applicable ( ) (very effective — adequate — not effective)		
3. Pause length: Not applicable ( ) (too long — just right — too short)		
4. % of pupils participating Not applicable ( ) (100% — 75% — 50% — 25% — 0%)		
5. Pupils' enthusiasm/interest: Not applicable ( ) (high — medium — low)		
6. % of participating pupils responding correctly by end of segment Not applicable ( ) (100% — 75% — 50% — 25% — 0%)		

E. Towards a solution

Now read the second part of the story. One acts as a doctor, and the other one reads what Mukwanangombe says.

Namene goes to the clinic

Doctor: Good morning mother. What is wrong with your child?

Mukwanangombe: Good morning doctor. Oh! Doctor, my daughter is sick.

* Mukwanangombe started crying.
She couldn't produce words any more.

Doctor: Please mother don't cry, tell me, what is wrong with your child so that I can try to help you and how long has she been ill?

Mukwanangombe: Oh! Doctor my daughter is sick. But I don't know what is wrong with her. She started abouout two weeks ago. What I observed is that she started to look very tired, weak, thin, with a swollen stomach and had no appetite for anything.

Doctor: Do you have any medical card or any monthly weight check-up card of her?

Mukwanangombe: No doctor. She does not have any.

Doctor: What is her name?

Mukwanangombe: Her name is Namene Amakali.

* The doctor examined the child and found that she was wrongly fed and she was not given enough food.

The child was admitted to the clinic and treated with "high protein energy".

"High Protein Energy" is a mixture of different kinds of food. We call it "hepe" in our settlements.

EXAMPLE 30: From unpublished draft of 'Primary Health Care', Namibian Extension Unit, Lusaka, Zambia

F. What do you think?

Discuss these questions in your group with your group leader.

Answer the questions:

1. Did the doctor give an injection or tablets?

2. What did the doctor give Namene?

Look at Namene's treatment card. This was written by the specialist doctor in child care.

Name: Namene Amakali Age: 4 years Sex: Female

6 am	9–10 am	12 am	3–4 pm	6 pm
Food and Drink	Drinks	Food and Drink	Drinks	Food and Drink
Thin porridge with milk, sugar, cooking oil plus drink Milk, tea or oshikundu	Milk or oshikundu one banana	Rice with meat, cooking oil drink Milk or tea	Juice Tea One apple	Potato porridge with milk, sugar, carrots, scrambled eggs drink Milk or oshikundu

3. How many times a day does Namene take food and drink?

4. What food and drink does Namene get at 6 am?

5. What time does she drink again?

6. How many hours are there between meals?

7. Why didn't the doctor give medicine?

8. What is 'high protein energy'?

After a short period in bed the child recovered and was later discharged. After that, Mukwanangombe always gave her daughter some other food with porridge. Namene remained healthy.

d. Administer the test, using the methods you have chosen.

e. Thank the students, and if possible let them know the results. Usually students want to see the marks they received for the work, even if these marks are meaningless. Offer the students comments rather than marks, if some of them got bad marks. A bad mark could mean a bad text and not a bad student. But a student might not understand that and could be unnecessarily discouraged.

Example 30 is from a lesson used in a test. The Namibian Extension Unit was planning a new course in basic health care for adults, and this lesson was drafted as a sample. The course was to be mainly printed materials for group study. Most of the adult students would have limited reading skills. They would study with the help of a group leader, someone with a complete primary education and a short training in adult education methods.

For the test, the lesson was typed, illustrated and photocopied, so that everyone could have a copy. The whole lesson was eight pages long, with two pages of notes for group leaders as well.

Two groups were convened to work through the materials. They contained about 15 people with an appropriate educational background. Two of the course writers acted as group leaders. The groups were about half the size of those expected for the course itself, but we thought it was better to have two small groups than one only. The leader took the groups through the lesson, which included one or two simple written exercises which were marked afterwards. Two people sat as observers in each group, noting down the time each section took, and points of difficulty. The observers had agreed beforehand what they were looking out for. After the lesson was over, the exercises were checked quickly, and the observers compared notes. Then we had an informal meeting with the students to discuss the test.

EXERCISE 3

Before you read the results of the test, look carefully at Example 30 and make your own suggestions for change. Write them below.

(10 minutes)

Comment

Several points were made and as a result the lesson was completely rewritten. Here are the main ones:

- The lesson was too long. A meeting was supposed to last an hour, but it took longer.
- The students disliked the mother's name, Mukwanangombe. It was too difficult to read and pronounce.
- The lesson was at the right level. Some writers had thought it was too easy, but it was not.
- The treatment card (page 1.7) was badly designed. The format was too complicated.
- The discussion questions worked well. The group found them interesting. Some writers had thought they were not very stimulating.
- The language level was about right.
- The writers had avoided the term 'malnutrition' as being too difficult. But all the students knew it already.
- Some of the pictures were criticised. People observed that one woman did not look quite like someone from their country. In another picture, a well-fed baby was not fat enough. Clearly, pictures would have to be very accurate to be acceptable.

This test provided the writers with enough guidance to plan and write the rest of the course.

6. Analysing results

Your analysis of results need not be sophisticated but it should be systematic. First, go back to the original objectives of the test. Remind yourself what it was that you wanted to find out. Take each of these objectives and consider the results for each. Let us imagine that 20 students have just completed a sample unit, which was meant to take 3 hours. One purpose of the test was to find out if the unit was the right length.

You will probably follow a series of steps in your analysis:

a. Count. How long did they take? You will fill in a table, something like this:

Time taken

	1 hr	2 hr	3hr	4 hr	5 hr or more	no answer
Number of students:		II	IIII	~~IIII~~ II	~~IIII~~	II

(Was the average time taken over 3 hrs?)

b. Note opinions. Did they think the unit was too long? You look at your notes on the discussion. You might find that most people agreed the unit was 'interesting' and 'a good length'.

c. Draw conclusions. The unit was longer than intended, but the students liked it. What do you conclude? My own conclusion would be to shorten the unit. The students who have done the test are volunteers and probably keen to please. The average student could be more easily discouraged, and would find it difficult to make extra time for study.

d. Discuss. Two heads are better than one. Discuss your conclusions with the course writers and anyone else who could make a contribution. A course writer might, for example, disagree with the conclusion I drew above. She might point out that the topic covered in the sample unit was exceptionally difficult, and the study time is necessary. She might suggest making two units out of the original one. On the other hand, she may agree with my conclusion, and we can move ahead with confidence.

e. Act. Whatever your conclusions, you should now act on them. The test is wasted if you merely file the results.

EXERCISE 4

Here is part of the analysis of a questionnaire recording and counting students' responses. Twelve students took part in the test. Look at these responses, note down any important criticisms the students make, and suggest some changes you would make to the material.

1. Name of unit: Hygiene

2. Time taken (tick the appropriate box):

less than 2 hours	III
2 – 3 hours	III
over 3 hours	𝍸 I

3. Tick to indicate how you felt about the unit:

Useful	𝍸	𝍸 I		I	Useless
Interesting	III	I𝍸	III		Boring
Easy		IIII	III	𝍸	Difficult
Too short		III	II	𝍸 II	Too long

4. Which parts of the unit did you like best? All (1 person)
The diagrams (1 person)
Section 3 (1 person)

5. Which parts of the unit should be changed? Exercise 3 (4 people)
Picture on p.9 (2 people)
'Too hard' (1 person)

6. Is there anything else we should include?
More about germs (2 people)

(When I count the answers, I take a blank questionnaire, and draw a vertical line for each response, like this, | , until I have five responses. I draw the fifth line diagonally, ||||, to make a bundle of five. The final addition is then very easy.)

(10 minutes)

Comment

The overall response is quite clear. The unit is useful and interesting, but difficult and long. Questions 2 and 3 give you this information. Not many people have answered questions 4, 5 and 6, but the points made for questions 5 and 6 give firm ideas on what changes are needed. Exercise 3, mentioned by four people, stands out as needing change.

7. Making revisions

After a test, discuss the results with the writers. Persuade the writer to revise the material while the results are still fresh in her mind. Discuss more general conclusions resulting from the test, such as points about the level of language or length of units.

After reading this unit, you have probably concluded that it is wise to test materials at an early stage in course writing, when only a few lessons at most have been drafted.

Summary

We run tests in order to improve materials we are developing or to help

train writers. We need to find a small number of people similar to the students expected on the final course. We can:

- give them the material to work through on their own
- watch them use it
- show them the material and ask their opinions
- discuss the material after they have used it
- run the whole course in a pilot version
- get feedback from tutors

To conduct a test we must prepare the materials and brief the students carefully. When we have analysed results and drawn conclusions, we should persuade writers to revise the materials straight away.

ASSIGNMENT I

For this assignment, you are asked to prepare a questionnaire to use for a test of a unit. Choose a sample unit from your own institution. Read through the material critically and decide what purpose testing might have. What do you think are the weaknesses of the text? What are the strengths? Then write a short questionnaire. It should have between 5 and 10 questions. Imagine that people will be asked to complete the questionnaire after studying the unit.

When you have drafted the questionnaire, you must check that it is clear and unambiguous. You must test the questionnaire itself. Ask 2 or 3 people to fill it in. Rephrase any questions that are misunderstood.

Now, if you wish, you can try to set up a real test of the material, along the lines suggested in the unit. Alternatively, you can discuss your questionnaire with fellow editors or writers.

Unit 11 : Deciding on a format

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Introduction

An editor has to bridge the gap between writers and the design and print department. We can describe course planning and writing as course development, and design, layout, typing and printing as course production. The editor works with the writer to develop a course, and also with designers and printers on production. The range of work expected of editors will vary from institution to institution.

At the end of the unit, you will be able to:

* choose a suitable page size and layout for a course, and decide how to organise material in booklets;
* arrange or design illustrations and textual features such as frames;
* explain or describe the factors which will influence these decisions;
* understand the potential and constraints of different kinds of printing facilities, and make the best use of them.

The unit will take about 3 hours to complete, and the assignment will take a further 2 hours. You will find it useful to have at hand some samples of materials produced by your institution, to compare with the examples given here.

1. Dividing a course into books

Usually, a distance-teaching text is divided into a number of units. Do you print these units in separate booklets, or do you group several units in one volume? Do you have many booklets to a course or just a few?

When units are in separate booklets, a student may feel a greater sense of achievement each time he completes a unit. A single long book can be threatening. If units are printed separately, it also means it is easier and cheaper to correct or revise a section of the course.

On the other hand, it costs more to print each unit separately, as each set of units must be folded, and stapled or bound. The packing and despatch of units is more difficult, and students are more likely to be sent the wrong material. Often, an institution plans to send out each unit separately. Students receive a new one each time they send in an assignment. In practice, this is laborious and costly, and prone to errors in despatch. Frequently, the institution ends up sending out batches of units after all.

2. Choosing a page size

Each page in this book is A4 size. An open spread of two pages is A3, while a page folded in half along the longer side becomes A5. A4 and A5 sizes are both commonly used. Which size is preferable?

A4 size is more frequently used. One advantage is that you can put more material on each page. Another is that you can easily fit pictures and other features on a page, as it is so large. On the other hand, an A4 book can be awkward to handle. It does not always fit on a bookshelf, and you cannot carry it in your pocket. It can also look rather large and forbidding to a learner who feels insecure.

A5 size is a convenient pocket size. It can be difficult to arrange material on the small pages, and often an exercise or other feature has to span two pages, awkwardly. For adults doing basic courses, the smaller book can be attractive and approachable.

If your book is a workbook, that is a book where students write in answers, A4 is almost certainly better. An A5 page does not leave much room for handwriting.

3. Page layout

We will consider the two common sizes of page, A5 and A4, and look at different ways of arranging the words on the page.

3.1 A4 portrait

'Portrait' means that the page has its shorter sides at top and bottom, like this page.

We can type across the page, as we have done in this book. An advantage is that we waste no paper. We have a margin that can be used for signs and markers, if we want. A disadvantage is that if we use small type, as we might with a typesetter or composing machine (see section 6 below), each line will contain many words, and the text will become a little difficult to read. Example 31 shows this. (Remember all A4 examples have been slightly reduced for this printing.)

Fig. 1:1 shows how an unspecialised cell appears under a student microscope and under an electron microscope which reveals much more detail. Bear in mind that there may be other structure which cannot be seen even with the most powerful instruments which we possess at this time.

☐ *Draw both diagrams yourself.*

All cells are composed of a substance called *cytoplasm*. This is a very complex solution of many substances in water. Some of the dissolved substances are small, fairly simple molecules such as salts and sugars whereas others are very large and complicated molecules such as proteins. These proteins are very important in the life of the cell and are largely responsible for the physical properties of the cytoplasm e.g. they give it an appearance and consistency similar to raw egg white which, as you know, contains a lot of protein.

Many of the cytoplasmic proteins are *enzymes*. These are substances which are able to bring about chemical changes within living cells and therefore are responsible for all the reactions constituting 'life'. Some enzymes break down our food into its basic units and provide us with the energy we need for movement etc. Other enzymes rebuild these basic food units into our own muscle, bones, blood etc. There are hundreds of different types of enzymes in the human body and most are found in the living cytoplasm of the cells. Therefore please avoid the common mistake of thinking that cytoplasm is just a 'watery solution'.

One of the jobs carried out by the cytoplasmic enzymes is that of making membranes which are used to construct the rest of the cell. As Fig. 1:1b shows the cell itself is surrounded by a membrane and contains numerous bodies such as the nucleus and the mitochondria which also have membranes. These membranes are more than mere boundaries. They actually govern the passage of substances into and out of the cell and into different parts of the cell.

The various bodies within the cell are designed to carry out specialised work and contain concentrations of special enzymes and chemicals, which need to be kept together and separate from the cytoplasm in order to work most efficiently. The largest body is the *nucleus*, surrounded by the *nuclear membrane*. Inside the membrane is dense material composed of protein and *nucleic acid*, called *chromatin*. Between cell divisions the nucleic acid controls all the activity of the cell. When the cell divides, the chromatin changes its shape from a very long tangled thread to 46 short thick bodies called *chromosomes*. These carry the inherited characteristics at various points along their length (the genes). Just before division a copy of each chromosome is made and the two daughter cells each receive a complete set of chromosomes with their genes. Thus inherited characteristics are passed on faithfully from cell to cell (and ultimately from parents to offspring). To sum up, the nucleus has two functions. It *controls* the cell's activity and it *transfers* genetic information during cell division.

Many types of smaller bodies are found in the cell but we only need consider the *mitochondria*. These have a double membrane boundary and contain special enzymes which act on raw materials, produced in the cytoplasm, and break them down to release energy. This energy is not wasted but is converted into a form which the cell can use for growth, movement, work etc. Not surprisingly the mitochondria have been compared to a hydroelectric power station which traps the otherwise wasted energy of a waterfall and converts it into electrical energy which can be used for heating, lighting etc. We can say that their function is to *produce useful energy*, and they are found in all cells but in greater numbers in cells which work hard such as muscle cells.

The cytoplasm plus the membranes and bodies it produces make up the living material of the cell and are collectively referred to as *protoplasm*. This is a term which was first coined in the days when microscopes were inadequate to show details of its structure and it tends to be less used nowadays. If a definition of the term is required we might say that it is all the living material of which cells are composed, including the cytoplasm, the membranes and various bodies (e.g. nucleus and mitochondria). Because of its high proportion of protein it is very sensitive to conditions which destroy proteins and therefore is killed by heat, acids and many other substances. We can see that it is rather unstable and that this should help us to appreciate why our bodies need to maintain constant internal conditions.

☐ *Now make notes on this section, using Chapter 1 of P.*

1:2 Specialised Cells

All cells have the components just discussed, but many have modifications of shape and structure which enable them to carry out one particular job. For greater efficiency specialised cells carrying out the same function are grouped together to form a *tissue*, e.g. muscle tissue, bone, nerve.

We need to study several types of tissue to see how the basic plan is modified. Very often tissue cells produce a substance which surrounds them and helps to carry out their function. This is known as a *matrix*. It is particularly prominent in tissues which give support or bind organs together e.g. bone, cartilage, connective tissue.

EXAMPLE 31: From 'Human Biology', National Extension College, Cambridge, UK, 1973, Volume 1, p.9

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Sometimes the page is arranged with two or three columns of print, like Example 32. With this layout, you can put a lot of material on a page, and avoid long lines. It is a useful layout for fairly advanced and lengthy texts. The pages look rather dense and forbidding for less experienced students. To do this well, you need a composer with a small typeface. With an ordinary typewriter the lines look too short. You need, as well, to justify the text, that is, type it with a straight right-hand edge. The text in Example 33 is unjustified, leaving an irregular space between the columns. The result is messy and confusing.

Sometimes the page is arranged with text running only part of the way across, usually about two-thirds across, as in Example 34. This arrangement is pleasing to look at, and the lines are a good length for easy reading. A disadvantage, however, is that a lot of paper is used in the printing. Up to one-third of every page is left blank. The empty margins can be used for diagrams or other illustrations, for signs and headings, and even by the students, for making their notes. However, much space remains unused, a severe problem when paper is expensive or scarce. In Example 34 the margin has been used for a list and a sign. If the space were filled with such features, the page would look overcrowded.

3.2 A5 portrait

Text is normally typed straight across an A5 page, which is too small to divide into columns. The pages are a good size for easy reading. Example 35 shows a complete A5 page.

3.3 A4 landscape

'Landscape' means that the page has its longer sides at the top and bottom, as in Example 36. This page illustrates a good use of a landscape layout. You will see that there are three columns, with a drawing in the middle, and a text on one side in English and on the other in Setswana. The space has been well used to arrange a bilingual text.

You can also arrange a landscape A4 page in 2 columns. You would never take your print right across the page, as the lines would be far too long.

An A4 landscape book is awkward to handle, if it has a soft cover. If you try to read it without a table, it will flop about.

3.4 A5 landscape

This is as good as A5 portrait, if you use a typewriter or a large size of print. If you use small print, your lines of text will be too long. This layout is sometimes used very effectively for beginners' texts, and can also be used where the students need space for handwriting, as Example 37 shows. The page in Example 37 is slightly larger than standard A5 size.

The commonest layouts, and probably the best for educational texts, are A4 portrait with text going right across the page (typewriter) or two-thirds across (typeset). I would like to see the A5 portrait layout used more frequently, as it is attractive and easy to use.

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1. Read the poems in your selection with great care making full use of the notes given and our own notes above. On this occasion, as the poet is difficult at the beginning, we suggest that you answer in writing the questions under the letter 'A' in the notes on page 120-3, at least for some of the poems (not to be submitted to your tutor).
2. Make your own notes on each poem, and add your opinion of it.
3. If you want to go further, get the Penguin Hopkins edited by W. H. Gardner. This is a superb collection of all the poems and a good selection of the prose, thoroughly and sensitively annotated.

SUGGESTED ANSWERS TO THE COMPREHENSION RESPONSE AND APPRECIATION QUESTIONS

Here are our suggested answers to the questions set in Unit 20, with a few notes. Please remember that while these would be considered satisfactory there may be other equally good answers.

1.

(a) "I was growing less timid ... squalor and brutality." (paragraph 1).

(b) "And what a glorious half mile ... to Surrey Lane." (paragraph 4)

(c) "I was delighted to lie there ... visits to the park." (paragraph 5).

(Paragraph 2 also makes an implicit contrast, and the opening of paragraph 4: but the above examples are perhaps better.)

2. He refers to the kind of "picturesqueness" which impresses only by its squalor and brutality; poverty is often picturesque, but only in a "negative" sense – it is never beautiful in the ordinary sense.
3. He must have taken his country holidays in late summer, August or September, as he had never "seen nature in springtime and high summer."

4.

(a) dangerous, risky, difficult to cross.

(b) the metal structure is finely designed, slender, decorative and ornamental.

(c) the leaves are gold, which suggests a treasure-house; moreover, they are precious to him because of their beauty.

5. He almost stops having internal pains and he begins to run instead of walking to and from school.
6. He longs for solitude so that he can savour his new "wonders"; at the same time he wants company so that he can tell others about them. His childhood has been in some ways under-privileged, and the novelty of his new surroundings is so great that he is "in a whirl" of excitement; hence he wants both solitude, to experience his surroundings more deeply, and company, because he believes they will appear equally novel to everyone else.
7. "Riches", "enchanted", "wonders", "drama of new experience", "glorious", "delighted", "flinging up my arms as I ran", "crazed" (there are several others).

8.

(a) "Transplanted" makes us think of a living organism, replanted in more promising soil and surroundings.

(b) "Towering" stresses the way in which the trees shoot up and look vast to the small boy beneath them.

(c) "Crests" suggests a living, moving head like the crest of a bird's head, swaying in the wind.

ASSIGNMENT K

The Assignment which follows is in two parts, based on Paper I and Paper II of the AEB examination in English Language you'll be taking. Don't start till you have 1½ hours to spare for Paper I. You'll need a break before tackling the second paper, and then you'll need 1¾ hours.

In our final unit we'll be giving you advice on taking the actual examination. Most of the rest of the course will be spent revising, but we won't be going over in detail much of the work we've done for the language papers, as these involve skills you've been building up gradually throughout the course; by now, you'll be very competent in some areas while being aware of your own weaknesses in others.

So this assignment, while it is a practice run for the exam, is also a revision exercise; if you make mistakes now – in planning your time, in discovering a weakness over a type of question – there's still time to learn from your mistakes. You'll need to go through your tutor's comments on this assignment very carefully, and use any specific suggestions he may make to help you in your final exam preparation.

Don't read on any further until you are ready to tackle the first paper.

Writing this Assignment

Please take this paper in conditions as close as you can to examination conditions, i.e.

1. Spend exactly 1½ hrs, at a stretch if you possibly can, on Paper I (Essay); and 1¾ hrs on Paper II.
2. Make no use of reference books or course material while you are answering the papers.
3. Plot the time carefully, so that your essay is finished and revised in the time, and you answer all the necessary questions in Paper II.
4. In the event of an unavoidable interruption, point this out to your tutor. If a prolonged interruption does occur, allow yourself extra time for reading through the work you had done before the break.

Paper I (1½ hours)

Write a composition on ONE only of the following subjects. Put the number of the subject chosen at the head of your paper.

1. Roads.
2. Moving House.
3. The future of *either* (a) The Cinema *or* (b) The Theatre.
4. The delights of one of the following pursuits: (a) Birdwatching (b) Hiking (c) Camping (d) Gardening.
5. "A Woman's Place is in the Home."
6. Using Richard Church's account of the move of house from Battersea to Dulwich as a "starting

EXAMPLE 32: From 'English Language and Literature 'O' level', National Extension College, Cambridge, UK, 1975, Volume 3, p.34

We can take the MOLE idea one step further. So far we have considered fundamental particles of matter, e.g. atoms, molecules, ions, but we can apply the idea to the fundamental electrical particles which produce the charges on ions viz. the electrons. Experiment shows that to produce one gram-atom of an element in electrolysis requires either 96,500 coulombs or some simple multiples of that quantity of electricity.
e.g. it takes 96,500 coulombs to liberate 1 g-atom of silver from silver nitrate solution, but 193,000 to liberate 1 g-atom of copper from copper (II) sulphate solution.

To liberate one atom of copper requires $\frac{193{,}000}{N}$ coulombs.

To liberate one atom of silver requires $\frac{96{,}500}{N}$ coulombs.

If the quantity needed to liberate one atom of silver is "e" then it takes 2e to liberate an atom of copper. "e" can be regarded as an "atom" or fundamental particle of electricity. It is in fact, the charge on a single electron.
e = F/N where F is a Faraday and N is the Avogadro number.
A Faraday = 96,500 coulombs. Another way to look at the Faraday is to say that it is N electrons i.e. The Faraday is a MOLE of electrons.

Applications of the MOLE idea
It is possible to write chemical equations which balance purely from a knowledge of the chemical formulae of the reactants, but there is no guarantee that such a reaction takes place. In practice every chemical equation has to be tested by qualitative analysis. Consider an example. Experiment shows that 0.265 g of aluminium react with 2.34 g of bromine. Assuming the formula of bromine to be Br_2 and given that Br = 80 and Al = 27, determine the equation of the reaction concerned.
1 g-atom of Al = 80 g,
1 g-molecules of bromine = 2 x 80 = 160.
In our reaction $\frac{0.265}{27}$ g-atoms of Al react with

$\frac{2.35}{160}$ g-moles Br_2

Roughly .... $\frac{1}{100}$ g-atom Al reacts with

$\frac{1.5}{100}$ g-moles of Br_2

or

ONE g-atom of aluminium reacts with 1.5 g-moles Br_2

Hence . . . TWO g-atoms of aluminium react with THREE g-moles Br_2

The left hand side of the equation is $2Al + 3Br_2$ =

The whole equation will be $2Al + 3Br_2 = 2AlBr_3$.

If we know the equation for a reaction or are given it in an examination it is possible to use it to calculate the theoretical yield of the products. This is obviously of importance in the chemical industry.

Example

Given that Ca = 40, C = 12, O = 16 and that the gram. molecular volume (G.M.V.) is 24 L under room conditions, calculate the weight of quicklime produced and the volume of CO_2 released when 10 g of chalk is strongly heated in a current of air.

The equation is:

$CaCO_3$	=	CaO	+	CO_2
1 g formula weight of chalk		1 g formula weight of		1 g mole of carbon
= 100 g	=	quicklime	+	dioxide
		= 56 g		= 44 g or 24 L

Therefore 10 g of chalk will yield 5.6 g of quicklime and 2.4 L of carbon dioxide gas.

We could have equally well worked in tons instead of grams as far as the weight side of the problem is concerned.

THE MOLE IDEA (Practice exercise)
This is an exercise on the Mole Idea. Try and complete it without consulting the previous section.

You will need to know H = 1, O = 16, S = 32, N = 14, Fe = 56, Mg = 24, Cl = 35.5.

The quantity 32 g of sulphur, 56 g of iron etc., is called a *gram-atom* of that element.
What property will "gram-atoms" of ANY element have in common?
They will all .. ..

If we go on to consider compounds, we speak of formula weights, e.g. the formula weight of water $H_2O = 2H + O = 2 + 16 = 18$.

Consider the formula weights of the gases NH_3, SO_2, and H_2S.

They are ..... , ... and ..... respectively. If the gases are all at room temperature and pressure, their formula weights will all contain .....
and occupy the same ..... viz .....
..... litres.

7h

EXAMPLE 33: From 'Chemistry GCE 'O' level', National Extension College, Cambridge, UK, Volume 1, p.7h

The parts of the electrical circuit by which the current enters and leaves the electrolyte are called *electrodes*, the one connected to the positive source of current is called the *anode*, the one connected to the negative side of the current source is called the *cathode*.

Movement of material takes place in the electrolyte when current is flowing. The entities which move in this way are called ions. Cations move to the cathode, anions to the anode.

All solutions of salts in water are electrolytes, as are aqueous alkalis and acids. Let us look first at acids.

2.2 Acids and bases

Some common acids

Acid	Formula
hydrochloric acid	HCl
sulphuric acid	H_2SO_4
nitric acid	HNO_3
'carbonic acid'	H_2CO_3
phosphoric acid	H_3PO_4
sulphurous acid	H_2SO_3
nitrous acid	HNO_2

Acids

When hydrochloric acid dissolves in water it forms a mixture containing positive hydrogen ions and negative chloride ions.

$$HCl \xrightarrow{water} H^+ + Cl^-$$

When this solution is electrolysed (i.e. subjected to electrolysis) the hydrogen ions move to the cathode because they carry an electric charge which is opposite to that borne by the cathode, opposite electrical charges finding each other attractive. The chloride ions move the other way.

Ions which move to the cathode, are positively charged, e.g. H^+, and are called cations. Those which move to the anode, are negatively charged and are called anions. Other physical properties of hydrochloric acid tell us that this splitting into ions or ionisation is the normal state of the acid, it's not just something which happens under the influence of the electric current. These ions are called the hydrogen ion, which is often loosely spoken of as a 'proton' and the chloride ion.

You will have noted that ionisation has occurred as soon as one hydrogen ion has left the molecule of an acid which contains more than one. That means that acids containing more than one hydrogen atom can give rise to more than one kind of anion. The acids listed above will therefore produce the following anions:

Acid	Anions formed	Name of anion
sulphuric acid	HSO_4^-	bisulphate
	SO_4^{2-}	sulphate
nitric acid	NO_3^-	nitrate
'carbonic acid'	HCO_3^-	bicarbonate
	CO_3^{2-}	carbonate
phosphoric acid	$H_2PO_4^-$	dihydrogen phosphate
	HPO_4^{2-}	hydrogen phosphate
	PO_4^{3-}	phosphate
sulphurous acid	HSO_3^-	bisulphite
	SO_3^{2-}	sulphite
nitrous acid	NO_2^-	nitrite

In the past many definitions have been given for what an acid is, but now it is generally agreed that an acid is a *compound which produces hydrogen ions in solution*.

HEK Activity 1

At this point you should work through the first set of practical exercises associated with this unit which are described in the HEK booklet.

EXAMPLE 34: From 'An Introduction to Environmental Chemistry', The Open University, Milton Keynes, UK, 1985, Course T234, Unit 3, p.12

THE OX - CART

63. An ox-cart is very useful for carrying manure,
harvests, wood and water around the farm.
You can also transport things for other farmers.
Some carts have iron wheels
while others have tyres.
Two oxen can pull a cart
loaded with up to 1,000 kg of goods.

The ox-cart is useful for carrying many things

LAND

64. **In general, it is best to have long fields**
so that your animals can have a long pull
before they turn at the end and plough back.
It is best to have straight sided fields.
The fields should be well cleared
and all the stumps and big roots dug out.

You cannot use an ox-plough
on fields with tree stumps.
You must dig them out.

EXAMPLE 35: From 'Farming with Animal Power', Farmer production series 230, INADES-formation, Nairobi, Kenya, 1982, p.33

8

THINNING

You may have many seedlings growing close together. When these seedlings are 5 cm high or the length of your first finger, you should do your first thinning.

Begin at one end of the beetroot row by pulling out a small group of seedlings every 5 cm. Do this until you have come to the other end of the row.

In 3 - 4 weeks you should thin the beetroots a second time. Begin at one end of the row by pulling out 1 or 2 beetroot plants in each of the small groups.

A third thinning is necessary in 3 weeks. You should leave about 10 cm between each beetroot plant after this thinning.

The plants you have pulled out in the second and third thinning may be large enough to eat.

GO FOKOTSA DIJWALO

Dijwalo tsa gago di ka ne di kgotlhagane thata. Fa di le boleele jwa 5 cm kgotsa monwana wa gago o monnye o tshwanetse wa fokotsa lwa ntlha.

Simolola kwa bofelong jwa tselana ya dibitiruti o ya le yone ka boleele mme lobaka longwe lo longwe lwa 5 cm o kumole di se kae. Dira jalo go fitlha o tsena kwa bofelong jwa tselana.

Mo bekeng tse tharo go ya tse nne o tshwanetse wa tomola tse dingwe gape. Simolola kwa bofelong jwa tselana mme o tle le yone o kumola e le nngwe fale kgotsa di le pedi fale mo di kgobokanyeng teng.

Go tlhokafala phokotso ya boraro morago ga beke tse tharo. O tshwanetse go katologanya dijwalo sebaka sa 10 cm morago ga go fokotsa mo.

Ditlhatshana tse o di kumotseng ka phokotso ya bobedi le ya boraro di ka ne di godile di siametse go jeva.

PESTS AND DISEASES

Cutworm - Cutworms eat the stems of your beetroots at the ground level. When you find a dead seedling dig carefully around the seedlings' roots to find the cutworm. Destroy it with your fingers.

DIJI LE MALWETSE

Cutworm - Dibokwana tse di ja dikutu kwa tlase. Fa o bona sejwalo se se suleng epa ka kelotlhoko ka fa thoko ga medi ya sejwalo go fitlhela o bona sebokwana seo. Se bolaye ka go se tshwetla ka menwana.

EXAMPLE 36: From 'Growing Vegetables', 4B Member's Booklet, Botswana Extension College/Department of Non-formal Education, Gaborone, Botswana, 1974, p.8

EXAMPLE 37: From 'It's happening NOW', English Language Course-Book Module 1 Units 1-3, National Teachers' Institute, Kaduna, Nigeria, 1979, p.17

QUESTIONS

1. **What is Mr. Ibikunle?**

2. **Who is Mr. Ibikunle staying with?**

3. **Who is visiting the north of Nigeria for the first time?**

4. **What is Yusuf doing today?**

5. **What are the Moslems celebrating?**

Correct your answers now.
The correct answers are on Page 10 of your ANSWER-BOOK.

EXERCISE 1

Examine the complete A5 page shown in Example 35. Note down what you think is good and attractive about the layout of the page as a whole and note down unsatisfactory or unattractive features. Try to make two or three points in each case.

(10 minutes)

Comment

The page is designed to help the poor reader. Only a small amount of text is on the page, and the lines are short, with sentences broken into phrases. The picture is well placed. On the other hand, the picture is quite small and there is no room for a picture to illustrate the second topic, land. Otherwise, I can find little to criticise in the layout.

4. Arranging features on a page

Good course units are a kaleidoscope of exercises, illustrations, short sections and so on. You will need to take care that the final text looks clear and well-organised. It could look a jumbled mess.

Each unit will follow a regular pattern, with an agreed format and style. Unit 12 of this manual contains guidance on developing and working to an agreed style. The text will, however, also contain a number of occasional features, and you will need to know how to deal with these.

4.1 Placing pictures

Every time a picture is included, you must decide:

* How much space does it need? Often you can decide that all pictures will be in two or three standard sizes, such as quarter page, half page, full page.

* Where should it be? A picture should always be next to the text that refers to it. When the pages are finally prepared, space should be left for the picture on the appropriate page.

* How should it be arranged? Does the picture come above the text it refers to, or below it, or beside it? Sometimes you will want students to read before they look, sometimes the reverse.

* What caption and labelling should the picture have? Often pictures need numbers as well as titles.

You will need to give clear instructions to the production department on the placing of pictures. Here is an example of how you might do it, including instructions to the artist.

PICTURE 1 here.
Drawing of a cart drawn by 2 oxen.
The cart is going along a road.
A farmer walks beside it.
The cart contains a large sack.
The picture is to be 10 cm high.
Caption (beneath the picture):
'The Ox Cart is useful for carrying many things'.

4.2 Arranging different sections

When the typist starts typing the units, sooner or later the following will happen:

* a heading will occur at the bottom of a page;

* a new section will start at the bottom of a page;

* an exercise will be split, with one bit on one page, and another on the next;

* a table will not fit on one page.

You cannot avoid this happening, and you cannot predict all the cases where this could occur, and deal with them in advance. You can, however, reduce the number of pages that will need retyping or reorganising.

* You can advise typists to start a new page, if a new section or exercise occurs within 10 lines of the bottom of the page (or any number of lines you choose).

* You can ask typists to consult you immediately if these problems occur.

* You can deal with tables by reducing them photographically so that they fit on a standard page.

In other words, you will need to take an interest in the typist's work. Although many course typists develop an excellent eye for layout, they cannot be expected to make decisions alone, and will need guidance from the editor. It helps considerably if the typist feels that the editor is an interested colleague, whose office door is always open.

4.3 Introducing design features

You will often want to make sections of the text stand out in some way by using small signs or by drawing frames. These features are not typed, but have to be drawn or stuck on the page. This means:

* You have to decide where they will be used.

It is normal to use such features regularly. If you decide to place a sign by exercises, the sign should appear by every exercise. If you decide to draw a frame round a summary, there should be a frame round every summary. In this manual, contents lists, examples and exercises are framed.

* You have to decide where they will be placed.

Sometimes a sign appears in the margin, as in Example 34. Sometimes it may be in place of text, as in Example 38. In this example, a pencil sign is used to indicate writing, and a tick to indicate checking the answers.

Exercise 8

Read again the conversation Watering the Vegetables. Some of the sentences below are right. Put a ✓ in the box next to the right ones. Put a X in the box next to the wrong ones.

1. You should use a watering can. ☐
2. Vegetables need a lot of water. ☐
3. A rose is something you can put on a watering can to make the water come out quickly. ☐
4. You should throw water from a bucket onto the vegetables. ☐
5. You can get water from the river. ☐
6. Plants like to be watered when the sun is hot. ☐
7. Disho likes to water the vegetables slowly. ☐

Look at the answers. How many did you get right?

Write here: ____

5, 6 or 7 is very good. For more wrong, do the exercise again.

When you want to tell people to do something important you can say:

EXAMPLE 38: From 'English Course', Namibian Extension Unit, Lusaka, Zambia, 1981, Workbook 6, p.30

* You have to give instructions to the typist and designer. If the typist must allow space for a sign or a frame, you must write an instruction on the manuscript every time the feature occurs. Make sure also that the designer knows exactly where each feature goes.

Example 39 is included to show an imaginative use of signs. It is from a course to teach English to immigrants in Canada. All instructions in the course are covered by these signs. At the beginning of the course, each student receives a key to the signs, like the one reproduced here, in his own language.

4.4 Planning the cover

Each text will need a cover, and this is usually prepared by a designer. You will need to brief him on the kind of cover you want.

* Do you want a standard cover for all courses, or do you want a different one for each course? A standard cover can become like an

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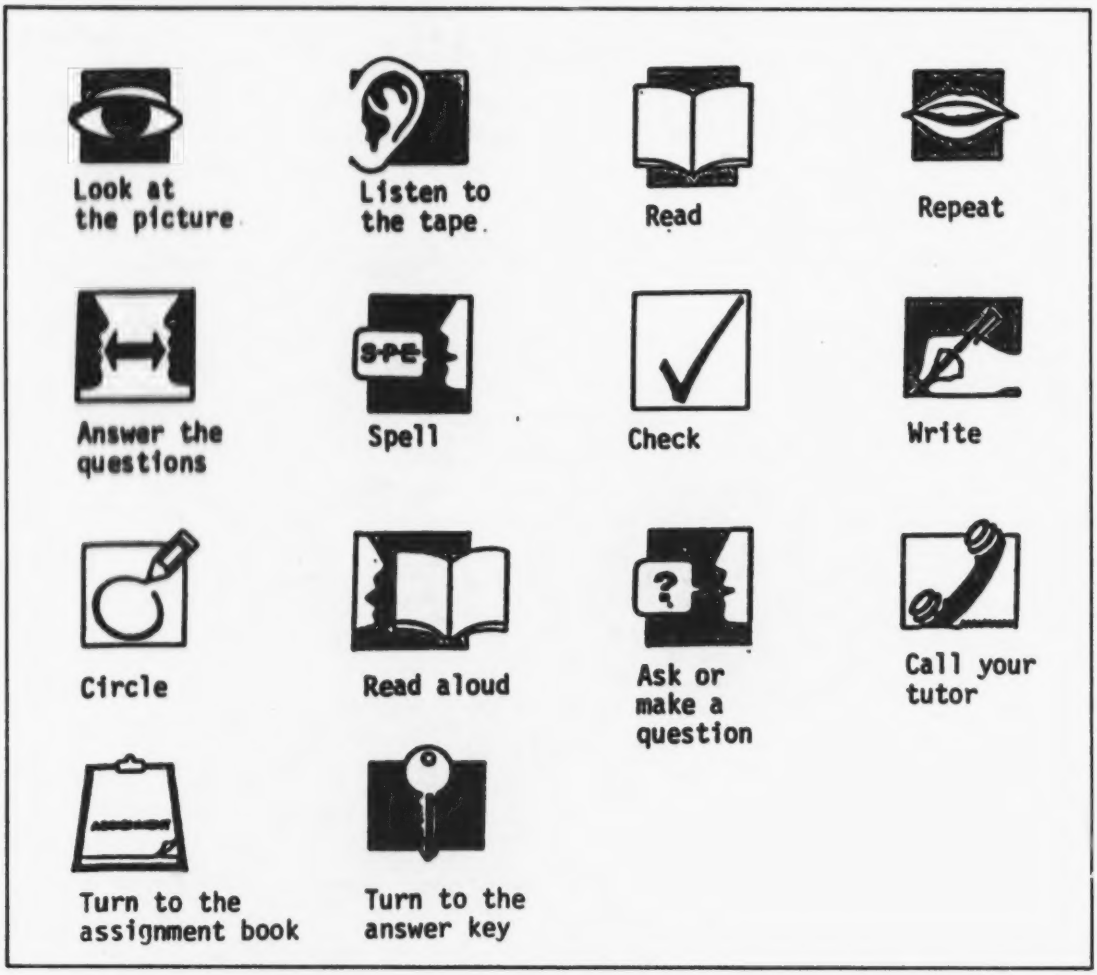


EXAMPLE 39: From 'English as a Second Language Course', Open Learning Institute, Richmond, Canada, 1983.

institutional trademark, so texts are easily recognisable. An individually designed cover can be attractive. You can combine both, with a standard layout for covers, with a varying illustration in one part.

When you need a cover illustration, collect ideas from the course writer, brief the designer, and let him produce two or three sample designs. You can then choose the most suitable.

* What kind of information should go on the cover?

You will want to include:

The name of the institution
The title of the course
The title or number of the unit or volume
The course reference code or number

All these features should be in large print and stand out clearly. You may also wish to include other information, like the course author's name.

If the cover has a spine, print the title and code on the spine as well.

This is useful for reference when the book is on a shelf.

* Try to make the cover distinctive. If you offer many courses, this will help your despatch department. You can, for example, code courses and volumes by colour. The despatch department will soon learn, for example, that maths has a red cover.

* Choose a functional type of cover. The cover needs to be sturdy. If you have any choice, choose stiff card that will not tear easily. Avoid pale covers that get dirty in storage or when they are handled a lot. Some colours, like red, fade quickly. Shiny, laminated covers are more expensive than dull card, but stay clean longer. Many students will value their course materials highly and will be disappointed if they receive a book which gets shabby and tears easily.

* Consider low-cost options. You can have a standard cover printed in large quantities. For each different course, the title and lesson number is printed or stamped on.

You can have a plain cover with no printing on it, but a hole in the card. The course and lesson title is printed on the first page, and shows through the hole.

In both these cases, you can provide a cheap variation by using different coloured card for the covers. Using black ink on coloured card or paper is a cheaper way to get a colour range than using one or two coloured inks.

5. Some criteria for decision-making

The points below may help you to decide whether to adopt an idea mentioned above, and which ideas will suit your circumstances.

5.1 The distant student needs a clearly organised text.

The use of signs or other distinguishing marks will help the students understand what they are expected to do at each stage. Signs can provide useful markers for changes, especially if a unit is rather long. Some students use signs actively, to help them organise their study and select material. They look ahead at exercises, using signs to pick them out, and plan their studies according to what they are expected to do. They leave out or skim through certain kinds of work, and concentrate more on others.

5.2 Research on reading provides guidelines on layout

* The most readable length of line is about 60 letters (10 to 12 words).

* . It does not matter if the right-hand edge is justified (straight, like this book) or not. There is no evidence that justified text is any easier to read (but see remarks on Example 33).

* An average size type is quite readable. A typewriter may be:

10 letters to one inch (10 pitch)

or

12 letters to one inch (12 pitch)

On a composer type sizes are measured in points. You can use:

10 point, like this

11 point, like this

12 point, like this

These are all good, readable sizes. Do not use very small type.

* Most typefaces are easy to read. You can use:

A sans-serif typeface: this one is Univers 10 point.

or

A serif typeface: this one is 10 point Press Roman.

(You can see the second typeface has little tails called 'serifs' on the letters.)

Do not mix two typefaces in the same book.

* You can use different type styles for emphasis

This typeface is medium

This typeface is bold

This typeface is italic

Do not have long passages typed in bold or italic. Italic is rather difficult to read.

* You can distinguish between paragraphs by leaving a line, as in this manual, or by starting the first word of a paragraph a little way in, as in Example 34. This is called indenting. You do not need a space and an indent.

5.3 Texts for poor readers need special attention

* Use large print rather than small. If you like, you can use:

13 point, like this

14 point, like this

15 point, like this

* Use unjustified text. Spaces between words and letters will be even. This makes words easier to identify for poor readers.

* Arrange text in short, distinct chunks, as in Examples 35 and 36. For very new readers, do not let paragraphs spread from one page to the next.

You will often have to plan texts for new readers page by page. For more advanced texts, you need not pay so much attention to detail.

5.4 Make sure the text looks interesting

Learning theory and common sense tells us that the initial step in

teaching is to catch the learner's attention. A text that looks lively and varied is better than a text that looks dull.

5.4 Spaces for answers

Leave space for students to write answers in the book, if you can. (If books must be re-used, you cannot do this.) A space for writing will encourage students to complete the exercises. With no space, they may not bother. Doing the exercises is, as you know, an important part of learning.

> EXERCISE 2
>
> Look at Example 40. What is wrong with it? Suggest how to improve it.
>
> (5 minutes)

Comment

I have five main criticisms of this page.

a. Some lines go straight across. This is far too long for comfortable reading.

b. The material on the top half of the page is placed in a higgledy piggledy manner, with no apparent reason.

c. The mixture of long lines and short lines is confusing.

d. The mixture of italic, bold and medium point is probably meant to add emphasis but adds to the confusion.

e. The complete page is overcrowded and unattractive.

You may disagree. On the good side, the page appears to have unity as a whole. The first half provides examples, the second an exercise. The heading is clear, as are the numbering of the exercises and the directions to find the answers. The diagrams are neat.

6. Making the best use of facilities

This section gives a few notes on the potential and limits of the facilities you may have for production and printing.

6.1 Typing

You are most likely to have one of the following kinds of facilities.

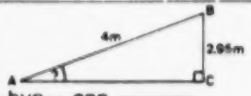
D Finding unknown angles

Imagine that you *know the lengths of 2 sides* in a right-angled triangle and you want to *find an angle*, like this:

We use one of the formulas on page 117, choosing the one which connects the *sides we know* with the *angle we want to find.*

Here are 2 examples:

To find angle A



We start with

hyp — opp
BC = AB × sine A

So 2.95 = 4×sine A

formula connecting *sides we know* with *angle* we want to find

÷ both sides by 4

$\frac{\text{opp}}{\text{hyp}} \quad \frac{2.95}{4}$ = sine A

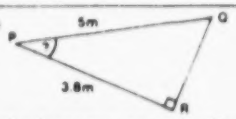
So sine A = 0.7375

$$4\overline{)2.9500}\quad 0.7375$$

and, looking up the matching angle in sine tables,

A = 47°31′

To find angle P



We know the *hypotenuse* and *adjacent*, so we use *cosine.*

hyp — adj
PR = PQ cosine P

So 3.8 = 5×cosine P

÷ 5

$\frac{\text{adj}}{\text{hyp}} \quad \frac{3.8}{5}$ = cosine P

$$5\overline{)3.8000}\quad 0.7600$$

So cosine P = 0.7600

So P = 40°32′

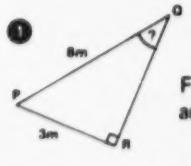
You will see from the examples above that we can rewrite our formulas to find angles when we know the sides, like this:

$\frac{\text{opp}}{\text{hyp}}$ = **sine (angle)** $\qquad$ $\frac{\text{adj}}{\text{hyp}}$ = **cosine (angle)**

We change the fractions to decimals by dividing, and use tables to find the angles.

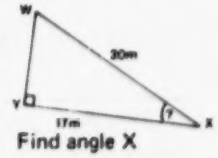
Now you try:

❶



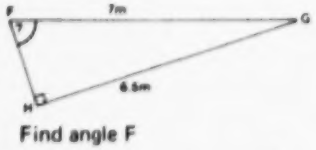
Find angle Q

❷



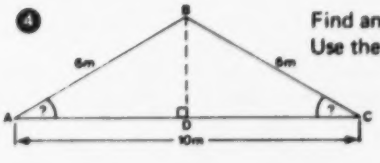
Find angle X

❸



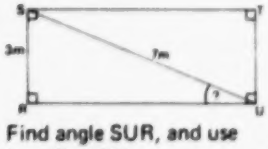
Find angle F

❹



Find angles A and C
Use them to find BD

❺



Find angle SUR, and use it to find RU

Answers on page 123

Answers
Page 119

❶ AB = 4×sine 40° = 4×0.643 = 2.572m ≈ 2.57m
❷ UV = 10 sine 20° = 3.42m ❸ KL = 40 sine 70° = 37.6m
❹ EG = EH+HG = 17 cosine 30°+20 cosine 25° = 14.722+18.120 = 32.842m ≈ 32.8m
❺ QR = QT−RT = 5.144−4 = 1.144m ≈ 1.14m
❻ AB = FC, but FC = FE+ED+DC, so AB = FE+ED+DC = 7.66+20+7.66 = 35.32m ≈ 35.3m

EXAMPLE 40: From 'Fleximaths', National Extension College, Cambridge, UK, 1982, p.121

a. Traditional manual or electric typewriter. You cannot vary the typeface. The typewriter is usually 10 or 12 pitch. This means 10 or 12 letters to an inch. Example 36 is typed on a 10 pitch typewriter.

b. Golf-ball typewriter. This has interchangeable heads, so that you can change from one typeface or type style to another. For example, you can use italics when needed. You can also buy golf-balls with mathematical symbols or other features which are not available on the normal keyboard. Some typewriters or printers use devices called daisy wheels instead of golf-balls.

c. Word processor. This is a keyboard, a computer and a printer connected together. The keyboard is like that of an ordinary typewriter, except that some of the keys control the computer program. You can use the program to arrange the text as you want. Each program will only provide a limited range of possibilities, but these are sufficient for most requirements. You can see what you have keyed in on a visual display unit, and correct it before it is printed. The typed material is stored on a disk. When you want to print a copy, you connect the disk drive to the printer and print your pages. You need a printer from the more expensive range to give you a choice of typefaces and to give you sufficiently high quality copies to print from. The cheaper dot-matrix printers are not good enough. This manual has been prepared on a word processor.

A word processor reduces the drudgery of editing, checking and retyping. You must take advice, however, before you buy a word processor for a hot country or for conditions where the electric current may vary.

d. Typesetting machine or composer. These are machines used by professional printers and can range from fairly simple to very sophisticated. The machines are like an electric typewriter to use, but have features which enable them to produce fine results, resembling the old metal type. You can produce versatile and professional results, but the capital outlay may be more than you wish. Examples 32 and 34 are good examples of typeset material.

6.2 Printing

Most people will use stencil duplicating or offset lithography.

a. Stencil duplicating. A stencil is a paper covered with small holes through which ink must penetrate in order to print. You can imagine from this that a stencil is likely to wear out. If you are careful, you can print several hundred copies from a stencil, and you can even store a stencil and re-use it. But after a while, copies get blurred. You need fairly absorbent paper for stencil printing, and that also can lead to a blurred effect.

All the same, stencils are cheap and an excellent method of printing for a small institution or small batches of materials. The one major disadvantage is that it is difficult to produce good illustrations on a stencil. If you use stencils, and wish to use illustrations widely, you could consider getting an electronic stencil-maker. This converts lines drawn on a page into a stencil. Thus a good illustration can be made into a stencil with no trouble.

b. Offset lithography. This is printing which involves a photographic process. To prepare a text for printing is very simple. You type the material on good paper using a special black ribbon on the typewriter.

Illustrations and other features are then pasted on to the pages. Any mistakes or alterations are typed on slips of paper and pasted on. Dirty marks or unwanted bits can be whitened out or a clean piece of paper is stuck over. Then the page is photographed on to a plate and printed. If you want to use photographs, or if you want a large number of copies, you will require more expensive plates. Most plates can be stored for re-use.

EXERCISE 3

This is a practical exercise. First, arrange a discussion with your course typists. Look at the equipment that is being used, and ask for a demonstration of what it can do. Then, do the same thing with your print department. If you use an outside printer, try to visit and see what kinds of work they can do.

(1 hour)

Summary

You should now be able to choose a suitable page size and layout for your course material. The choice of format should take into consideration the students' needs, the guidelines offered by typographical research, and the potential and constraints of your production and printing facilities.

ASSIGNMENT J

Examine some course material from your institution. In the light of what you have learnt in this unit, can you make any suggestions for a revised format for future courses? Work out some proposals, using the existing unit as a model for amendment. Please complete Exercise 3 before finalising your proposals, so that you are sure they are realistic and practical.

Unit 12 : Copy editing

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Introduction

After you have agreed on a format, you have to explain it to typist, designer and printer. Normally, you write instructions on the manuscript or typescript. In order to make such communication easier, a number of signs and conventions have been developed, used by printers and editors everywhere. In this unit you will learn how to use them.

At the end of the unit you will be able to:

* start developing a house style for your courses;
* copy edit and mark up a text following a house style;
* check that a text is complete and make the finishing touches;
* brief a course typist;
* brief an illustrator.

This unit explains how to prepare a text for production. If the material in it is quite new to you, you are advised to devise additional exercises yourself, and to practise marking up the text. As in the previous unit, there are quite a lot of technical terms. Make sure you understand them.

This unit could take you up to 3 hours, especially if you do additional exercises. The assignment will take one or two hours. If the work takes longer, do not worry. You will find that after some practice you will be able to mark up texts accurately and quickly.

1. Devising a house style

A house style is not a kind of architecture; it is a term used by printers for the format they use and conventions they follow. The word 'house' is used because in old-fashioned English, we talk about 'publishing and printing houses' rather than 'publishers' and 'printers'. The publisher will make up a list of standard instructions, which everyone will follow. This list can contain all kinds of things: punctuation ("Oh" not 'Oh'); spelling (s not z in words like 'organisation'); format for headings (underlined, not capital letters) and so on. The list may be several pages long. Here is an extract from a list which explains how to use numerals.

> **Numerals**
>
> Of the optional symbols, decimal point or decimal comma, we have chosen to use the decimal point.
>
> No symbol is used between, for example, the thousand and hundreds digits in a numeral. But a space is left after every three digits counting from the decimal point in both directions.
>
> For example: 9 672 431
> 7.256 37

You can see that a list of agreed rules like this is extremely useful. If everyone tries to follow it, then the editor will not have too hard a job arranging the final text. The editor does not have to make decisions about detail.

It is up to each institution to decide its own house style. Here is a checklist of headings and questions you might use to develop your own list.

General layout

- Do you start each unit with a new page? A right-hand page or any page?
- Do you start a new page or not with each section?
- How do you lay out exercises? In a frame? Indented?
- How do you lay out special features like objectives or summaries?
- Do you leave space for students to write answers or not? Do you print lines for them to write on? Solid lines or dots?
- Where are the answers to exercises to be placed? How are they presented?
- How are paragraphs arranged? A space between them or indented on the first line?

Headings

- What hierarchy of headings do you use?

- What type do you use for main headings and subheadings?
- Are headings central or at the side?
- Are headings numbered? How?

Pictures, tables, diagrams, etc.

- Are there standard sizes?
- Are they framed or not?
- Are they titled or not? Where are captions placed?
- Are they numbered or not?

Capitalisation

- When do you use capitals?

Spelling

- Where there is a choice, which spelling do you use?

Numbers, dates and time

- Do you use figures or words?
- Do you use spaces or commas to indicate thousands?
- How do you express dates (eg 15 May or May 15th)?
- How do you express time (eg 13.00 h or 1 pm)?

Abbreviations

- When do you use them? Which ones do you use?
- Where do you explain them?

Punctuation

- When there is a choice, which do you use?

Typefaces

- When do you use italics? When do you use bold? For technical terms? Foreign words? Emphasis? Headings?

If you start with a list covering some of these points, you will quickly add more items until it is sufficiently comprehensive. For those producing texts in English, there is a useful reference book called Hart's Rules for Compositors and Readers. If you do much copy editing, try to get it.

EXERCISE 1

Find one or two books published in your own country. School text books would be ideal. Using the headings in the list above, look through the books carefully to find out what conventions are most usual in your country.

(20 minutes)

Comment

It is only when you are working closely on a text that the need to make choices becomes apparent. Here are some guidelines for English texts which may help you learn what to look for.

- We usually start each new lesson on a right-hand page, but only occasionally start a new page for each section.
- We usually provide dotted lines for writing answers, widely spaced for large writing. Solid lines are too heavy.
- We usually use capital letters only for main headings. Unit titles are usually placed centrally, and other headings are to the left.
- Captions to pictures are usually placed underneath the picture.
- The main spelling choices in English are between 's' and 'z' in words like 'organisation', 'recognise', 'realise'. There is also a choice between American spelling (center, I practice) and British spelling (centre, I practise).
- We usually give words for numbers up to ten appearing in the text, and then figures for numbers over ten. You may find it useful to refer to the international standard rules for expressing quantities and the like. These state, for example, that 3 metres is always abbreviated to 3 m and that ten thousand should always be written 10 000.

EXERCISE 2

If you have no house rules in your institution, try to make a list. You will find it useful to look at a sample of your own texts to help you.

(30 minutes)

Comment

Discuss what you have done with a colleague. (You may prefer to wait until you have finished other work in the unit before you do this.)

2. Copy editing and marking up

We start with two technical terms. The 'copy' is the material that is going to be printed, and 'copy editing' is therefore editing this agreed draft so that it is ready to print. You also have to write instructions

for the course typist on the copy. This is called marking up.

It may be helpful at this point to list the events between writing and typesetting. We start when the writer and editor have both worked extensively on the text, the writer has submitted his final draft, and this has been approved. At this stage it may be necessary to type or retype the draft. The typist will type it as a draft, plain typing with a double space between the lines. The editor must then check the typing carefully to make sure it follows the original. Errors can be corrected by hand.

You now have an accurate text, clearly typed. This is your 'copy'. What editing does it need? If you have worked on the text carefully during its earlier development, it will need little. You must, however, read the whole text through carefully, and check it as follows:

Is the language clear?
Are all the technical terms explained?
Are headings arranged consistently?
Are paragraphs correctly divided?
Are the instructions clear?

This should not take as long as the first edit. You will probably have to make numerous minor changes to the text. Refer to your house style, and correct punctuation, spelling and other expressions wherever necessary. Make sure that all the material is consistent. When you are satisfied with the text, you can mark it up. To do this, and to mark corrections and amendments on the copy, you use standard signs. The most common signs are given in the table. These are used for marking up and proof reading (see Unit 13).

Mark in left margin	Mark in text	Meaning
e/	Be carful	insert missing matter
of	Be careful/	leave out extra matter
⁀of⁀	Be care ful	leave out matter and close up space
stet	Be carefwl	leave as typed (if you correct something wrongly)
CAPS	be careful	change to capital letter
l.c.	Be Careful	change to lower case letter (small letter)
#	Becareful	insert space
trs	Be carfeul	transpose or change order of letters or words
NP	⌈Be careful	begin a new paragraph
run on	...never.⁀ ⁀Be careful	Continue text on same line No new paragraph
⌐	⌐Be careful	Move to right

170

⊐	←Be careful or Be careful⌋	Move to left
spell out	(e.g.) (2)	Write out abbreviation or figure in full

TABLE OF SIGNS FOR CORRECTING TEXT

Look carefully at the signs and at the examples below them. You need to learn these signs. You will find them quite easy to use with practice.

caps Marking up

When you are preparing a text for typesetting, ~~you~~ go through it carefully, correcting all the errors.

⊐/lc./ls ←Follow all the ®ules that your organi/ation has adopted. Mark the text clearly so that the typist knows your intentions.

run on

Use the signs given in the table.

EXERCISE 3

Cover up the example you have just looked at. Here is a correct version of the passage.

MARKING UP

When you are preparing a text for typesetting, go through it carefully, correcting all the errors.

Follow all the rules that your organisation has adopted. Mark the text clearly so that the typist knows your intentions. Use the signs given in the table.

Now try to mark up the typescript without looking at my version. When you have finished, check against the example.

Marking up

When you are preparing a text for typesetting, you go through it carefully, correcting all the errors.

Follow all the Rules that your organization has adopted. Mark the text clearly so that the typist knows your intentions.

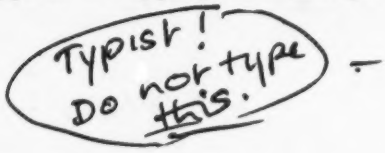
Use the signs given in the table.

(10 minutes)

Comment

The purpose of marking up is to give instructions to a typist. If in

doubt, you can write messages to the typist. As you do not want the typist to type your messages by mistake, use this convention:



Write TYPIST! and then the message in the left margin. Then draw a circle round the message.

3. Finishing a text

As you arrange the course units into books, there will be some finishing touches. We have already mentioned commissioning the cover design. You will also need to arrange the beginning and end of each book.

3.1 At the beginning

a. Title page. We use this name for the first printed page of a book. The title page contains the title of the book. It also usually gives similar information to the cover: name of institution; name of series or course; course reference number; course author.

b. Reverse of title page. The back of the title page should contain reference data about the book, as follows:

Name and address of publisher (i.e. your institution)

Name and address of printer (if different)

ISBN (International Standard Book Number), if used

Bibliographical data on author (included if the book is likely to be put in libraries)

Date the book was published (reprint dates and new edition dates are also given, where relevant)

Number of copies printed (sometimes)

Ackowledgements: a list of those who gave permission to use copyright material or otherwise helped

Copyright symbol and name of copyright holder (usually the publisher)

You may also have special national requirements, for example you may need to state that a course has been approved by the Ministry of Education.

It is usual to print matter on this page in small print. It is not of major interest to students.

c. Contents page. This covers the contents of the whole book. If several units are bound together in one book, you will need to give the page where each unit starts.

d. Course introduction. This would occur only in the first volume of a course. It is often the last part of the course to be written, and often the editor drafts it.

EXERCISE 4

The course introduction normally contains a statement of the objectives of the whole course. Can you think of other features it might contain? Note down as many as you can.

(5 minutes)

Comment

The answer you give depends to a certain extent on what other sources of information the student has. Most distance-teaching organisations have general handbooks for students which contain advice on studying, and explain how their teaching system works. Some of the topics listed below could be covered in a general handbook instead of a course introduction. You would need to tell students:

About the course content. You would list objectives, describe the contents of the course and the arrangement of the subject, perhaps introduce the subject, and where relevant print the exam syllabus.

Who the course is for. Describe the sort of student you expect to do the course (for example, mention any qualification they are expected to have). Describe the extent of knowledge of the subject they are expected to have. If no previous knowledge is expected, say so.

About the course materials. What exactly should the students receive, in what sequence, and when? How many course books are there, for example?

How the course works. Explain how they are supposed to work through the material, at what pace. Explain when and how to send work to their tutor for marking.

What they need to do the course. If they need equipment or books, list them in the introduction. Mention, too, any recommended background reading, but distinguish clearly between essential books, which every student must have, and recommended books, which are desirable but not essential.

How they should study. Give advice on organising time, making a study timetable and other practical matters. Give some hints on study skills, like keeping notes and revising regularly. Give advice on approaching the subject and studying it effectively. For example, in an agricultural course you would stress the importance of doing practical work.

How to get help. Explain how to get help from a tutor or student advisor when difficulties occur. Make sure you describe the facilities available from your institution, such as local study centres or postal library loans.

Many items from this list could be in a general handbook. Some could usefully be repeated in a course introduction, along with information relating only to the course.

3.2 At the end

a. Answers. Make sure all the answers are included at the end of the book (if that is where you have decided to place them).

b. Glossary. Check any glossary of technical terms, make sure it is complete, and check all the definitions given.

c. Index: A course may need an index. This will be used only for reference. When you are revising, you may for example want to check every reference to a particular topic. An index is only necessary for long and complex courses. Usually, the unit contents lists are adequate for reference.

d. Course comments page. A comments page or evaluation questionnaire may need to be placed at the end of the book (see Unit 14).

Do not forget to list these features in the contents list of the volume.

4. How to brief a course typist

A course typist is neither a copy typist nor a secretary. Usually, a well-trained typist is selected to learn to type courses. She may continue with ordinary secretarial duties as well, or become exclusively a course typist. To operate a word processor or a composer, she will need a short specialist training. You can yourself train the typist to lay out the pages correctly.

As a skilled worker, the course typist ought to be given some responsibility. If you train a good typist carefully, you will soon find that she notices and corrects mistakes. You can train a typist as follows:

* Give her a copy of the house style document. Go through it with her, explaining each point.

* Teach her the printer's marks you use for marking up the text. Teach her a few at a time. Provide her with a list of them for reference.

* Supervise a new typist carefully. Ask her to type a small amount and to show you what she has done. Let her work like this, very slowly, for a day or two, until she is quite at home with the work.

* Encourage the typist to consult you over problems at any time. Always be ready to answer a question. Most questions will only take a moment.

* Encourage the typist to work to a high standard, even if this means going slowly. Accuracy and quality are most important.

* Encourage the typist to read through her own work and correct it before handing it to you.

If you yourself do not supervise course typists, an efficient and sympathetic person must do so. It is most important that course typists work in a good, encouraging environment. They must at all costs be protected from interruptions by senior staff who want, for example, letters typed urgently.

5. How to brief an artist or designer

A briefing on layout will involve a discussion on house style. Pay particular attention to instructions for illustrations. When a picture or diagram is needed, give instructions as follows:

* State the size and dimensions of the picture.
* State the style of drawing wanted (line drawing, cartoon, etc.).
* Describe the subject matter in detail.
* Sketch the subject (perhaps).

If necessary, you should ask the artist to produce a draft before a final version. It is best to brief him both orally and in writing. You will find an example of a written briefing in Unit 11. You can discuss the requirements together to make sure it is clear. The written version then gives an unambiguous record.

While detailed briefing is important, you should also allow the artist or designer freedom to suggest his own ideas. Designers are trained to think visually and may sometimes see possibilities that editors miss.

Summary

This unit has explained how to develop a house style and discussed what to include in it. It has also shown you how to mark up a manuscript or typescript, how to make the final preparations before typesetting, and how to brief the course typist and artist or designer.

Most people find copy editing and marking up rather difficult at first. You will find it gets easier when you have had some practice.

ASSIGNMENT K

Take a sample typescript and copy edit it and mark it up, following the house style proposals you devised in exercise 1. Get two or three pages typed, helping the typist as suggested in section 4. When you have done this, you will have a sample of text ready in your proposed house style. You could now circulate the proposal and the sample amongst your colleagues, and seek reactions.

Unit 13 : Production and printing

Contents

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Introduction

This unit sees us through the final stages of producing a course. Once the text passes to the course typist, you will have one of two roles. You may oversee the production, keeping track of progress, moving the materials from one stage to the next. Or, if you have a production manager, you will simply have to be available for the frequent checking that is necessary.

At the end of this unit you will be able to:

* describe the stages of production;
* describe the editor's role at each stage of production;
* proof read;
* list some common production problems and suggest ways of dealing with them;
* provide details for the launch of a course.

The most important quality of an editor at this stage is perseverance. You have to check several times. You must be meticulous in your attention to detail. There is nothing difficult in this unit, but perseverance and attention to detail will be of value as you work. The unit will only take about an hour to complete.

1. Stages of production

The text is copy edited and marked up for typing. What happens next? What does the editor do at each stage? The table below shows us.

Job	Editor's role
Typesetting	Supervise typist as needed
Illustrations, etc. prepared	Brief artist, check drawings
Typing finished	Proof read
Corrections typed	
Corrections checked	Editor does
Further corrections typed	
Corrections checked (and so on, until all errors retyped)	Editor does
Pages made up	
Pages checked	Editor does
Pages corrected	
Pages checked	Editor does
Final check: pass for printing	Editor does
Printing	
Copies checked	Editor does

STAGES OF PRODUCTION AND THE EDITOR'S ROLE

You can see from this outline that the editor has to check each stage. It is unwise to leave out any checks. You have to be available, therefore, on each occasion to do the checking. Checking corrections sometimes only takes a few minutes. If you delay, you can delay the whole course. The best way to keep things on the move is to have a detailed schedule. You can keep track of progress by storing the artwork (the name we use for the typed course) in a file or envelope with a dated checklist on it. This could be like the example below. The editor here initials the 'signed' column when the job is complete.

Job	Date due	Date done	Signed
Typesetting	15 March	17 March	
Illustrations	15 March	24 March	
Proof Reading	23 March		

2. Proof reading

The typed but uncorrected artwork is called the proof copy. Someone must read it and note the errors for correction. The errors are marked using the same signs as for marking up. Usually you read a photocopy of the artwork, and mark it clearly. On a stencil, you can use the back copy. If you do not have a photocopy, you use a pale blue pencil on the artwork. At printing, the camera does not pick up the blue.

You mark proofs in the same way that you mark copy. Look back at Unit 12 and remind yourself how to do it. When you read proofs, it is particularly important to put marks in the margin as well as in the text. The sign in the margin tells the typist to look for something to correct.

Proof reading is difficult at first. You may not notice errors. How can you learn to do it well? Here are some hints.

* Always read both the artwork and the original typescript or manuscript. Compare them sentence by sentence.

* Force yourself to read slowly. Read aloud, if you like, or mouth the words, to slow your reading speed.

* Do not proof read for long at any one sitting, especially at first. When you are not used to it, half an hour is long enough.

EXERCISE 1

Here is an extract for you to read, together with the correct printed version. Mark the typescript so that the typist would correct it to match the printed version.

The Lesson should be rounded off with a Summary, and perhaps a cheklist of all the acitivties to be done in the lesson (see Sample 30). there will alos be a final piece of work for studnets to do. Probably, though not necessarilly in every Unit, this work is to be sent in for Marking, and so it should represent some sort of cheque that the student has understood the work of the whole unit. In Exam coures, the final, marked, peace of work will probably provide practise in techniques needed for the exam - in Essay-Writing, for example, or in conducting and report scientificexperiments You will need to include full instruction for completing the work, and for send the work for marking. You may also needed to pRepare instructions for the Tutors who will be marking the Work. You should state clearly what work of sort

you expect students to send in and what standerds you consider

Acceptable. You may also want to suggest to tutors what sort of auction they should take if students fail to reach those standards.

Comment

Here is my version. The extract is from IEC's manual Writing for Distance Education.

The lesson should be rounded off with a summary, and perhaps a checklist of all the activities to be done in the lesson (see Sample 30). there will also be a final piece of work for students to do. Probably, though not necessarily in every unit, this work is to be sent in for Marking, and so it should represent some sort of check that the student has understood the work of the whole unit. In exam courses, the final, marked, piece of work will probably provide practise in techniques needed for the exam - in essay writing, for example, or in conducting and report/ scientific experiments/ You will need to include full instruction/ for completing the work, and for send/the work for marking. You may also needed to prepare instructions for the tutors who will be marking the work. You should state clearly what ~~work of sort~~ you expect students to send in and what standerds you consider Acceptable. You may also want to suggest to tutors what sort of auction they should take if students fail to reach those standards.

You probably found that exercise demanding. Normally, you would ask the typist to retype a page that contained so many errors.

When you read page after page, it becomes more difficult to notice every error. For this reason, here are two further suggestions.

* Two people proof read together. One reads the manuscript or typescript aloud. The other checks the proof.

* Two or three different people read separate copies of the proofs. You then transfer the marks onto one copy, for correction.

I strongly advise you to follow either or both these suggestions. It is usual to ask the writer to be one of the proof readers. But you must not allow the writer to make any changes to the text apart from corrections. Changes are very expensive at this stage, and will throw your schedule out.

3. What can go wrong?

There are three kinds of problem that commonly occur at this stage. One is the usual one, of lateness. In the production phase, rather more individuals are involved than at other times, and any of them may slip behind schedule. Once this happens, there may be a domino effect, with other people and other courses affected. Try, when you make your schedule, to allow a little slack for crises. Discuss the schedule with everyone involved before finalising it. Try to get everyone to take their deadlines seriously.

The second problem is when there is a muddle. All too often corrections get misplaced, pages put in the wrong order, illustrations wrongly placed. Sometimes you see a finished book with pictures obviously in the wrong position. How does this happen? It comes from carelessness over checking. Each time a change is made to the artwork, whether it is a new step or a correction, you must check that it has been done correctly. Otherwise, you may end up with a book containing unnecessary and obvious mistakes. This is always depressing, after so much work has gone into it earlier.

A third problem is to do with printing. It is not something that you can do much about. Most printers, whether they are part of your institution or outside printers, have difficulty keeping to promised delivery dates. To reduce the risk, make sure that you deliver to the printer on time, so that the printer has a good chance of completing on time.

The way to minimise problems is to be scrupulous about keeping to the schedule and about checking. Be prepared to spend a fair proportion of your time checking on progress and reminding colleagues of deadlines. Encourage the development of a team spirit in the production department, so that people are ready to work efficiently and flexibly.

4. Launching the course

At last your course is printed and ready for delivery to students. There are one or two points to attend to, even now. First, prepare a course contents list. This is a complete list of components of the course (number of booklets, tapes, etc.) which states what is contained in each batch the students will receive. Such a list tells despatch what to send out in each mailing, and when it is enclosed with the course it allows the students to check that they have received the right material. Example 41 is a course contents list used by the National Extension College.

Second, you may be expected to prepare a short description of the course for your institution's brochure or handbook. This might summarise the aims of the course and the syllabus, list the components, and mention any interesting features. You should have no difficulty in doing this.

FlexiStudy
National Extension College

COURSE CONTENTS LIST

Course Number S027 Course Title BIOLOGY 'O' LEVEL

Please find enclosed your course material as per your order. Please note that in the case of courses which include cassettes these will only be sent if ordered separately. (We are unable to send out cassettes on inspection.)

For your information the complete course consists of:

VOLUME 1: Units 1-8
Errata Sheet - Units 1-8 6th September 1984

VOLUME 2: Units 9-16
Errata Sheet - Units 9-16 6th September 1984
Note on blood transfusion (for Assignment 7)

VOLUME 3: Units 17-24
Errata Sheet - Units 17-24 6th September 1984

SYLLABUS NOTE

This course covers the AEB syllabus 006

ESSENTIAL BOOKS

Students will need to purchase the following essential book:

Brewer and Burrow: Life; Form and Function. Published by Macmillan Education.

JREB/11.9.84

EXAMPLE 41: A course contents list from a National Extension College course in 'O' level Biology.

Summary

This unit has shown how the editor may have a key role in managing the production process, or may work closely with a production manager during the final stages of production. I have emphasised the need to be careful and persistent as you complete work on a course. The main tasks are proof reading, checking and progress chasing.

There is no assignment for this unit.

Unit 14 : Course maintenance and revision

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Introduction

The editor has to ensure that a course remains suitable for the students. It is part of the editor's job to deal with errors, to keep courses up to date, and deal with courses that are too difficult or otherwise unsatisfactory. The editor must therefore be responsible for organising course corrections, revision or replacement.

At the end of this unit you will be able to:

* collect data on courses;
* carry out a periodic assessment of the course;
* maintain your courses;
* decide whether to revise materials, what to revise, and how.

Course maintenance and revision should form only a minor proportion of total editorial workload. It is, however, an important aspect of editorial work, and an institution must establish procedures to ensure that they are dealt with regularly and efficiently. The emphasis in this unit is on administration. The quality of courses depends on thoughtful planning and administration.

This unit will take about an hour to complete and the assignment will take 1 or 2 hours.

1. Collecting data about a course

You need to identify errors and take action to correct them at any time. First, how do you discover errors? If you simply wait for users of the materials to point out errors, you may never find them. I once discovered a completely senseless paragraph in a course that had been in use for 10 years. The typist had left out several lines. Nobody had informed the editor, although anyone who had read the lesson would notice the mistake. Distant students are often ready to blame themselves rather than writers or printers when they do not understand something, and this must have happened in this case.

You must therefore encourage people to tell you about errors:

* You can encourage students to tell their tutors. Some institutions use 'difficulty' sheets, where they note points they do not understand. Sometimes they will note errors on these as well as problems.

* You can encourage tutors to tell you about errors.

* Students may tell you directly. You can enclose forms with their lessons, on which they note errors.

* You may notice errors yourself.

* Anyone else who looks at the material may notice errors.

As soon as a course is printed, open a file for corrections. Every time anyone notifies you of an error, record it in the file. The most usual way of doing this is to take a copy of the course book and label it 'Editor's marked copy'. Then you mark every correction in this copy. Use a bright-coloured pencil or pen so that each mark is clearly visible. This copy is important, so keep it safely, and never use it for any other purpose. Never lend it or give it away.

You can collect other feedback on a regular basis. Some of this feedback is systematic. For example, student records will tell you whether the average student gets good or bad marks on a particular assignment. If most of the students get good marks on Assignment A and bad marks on Assignment B, you can guess that there is something wrong either with the assignment or with the unit leading up to it. If you examine the student records on a regular basis, you will soon discover which courses or units the students do badly.

You can also collect students' assessment of the material. Usually each time a student sends in an assignment, he must complete a form giving his name, student number and other personal data. You can include on this form a small number of questions about the course itself.

You might have questions like:

The unit was much too long

slightly too long

just right

too short

The unit was much too difficult

slightly too difficult

just right

too easy

(Tick the appropriate box)

Unit 10 contains some more examples. Students will generally fill in such forms automatically when they send in their work to the tutor.

This technique has a major disadvantage. You collect a great many forms, often so many that the information is unusable. I once had to throw away thousands, because I had no time to analyse them.

If you have a computer, perhaps such information is of use. However, you still have to record the data on the computer. Do several thousand forms collected as a matter of routine give you more or better information than a few hundred?

Information collected unsystematically is also useful. You can, for example, include a 'course comments' page with each course book. Students are invited to write their comments, favourable or unfavourable, and their suggestions on the page and send it to the editor. Or you can simply invite them, somewhere in the text, to write you a letter. Only a few students will do this, and these will generally be either the keen students or the angry ones who have some complaint. So you will not receive a balanced view of the course, but you will receive some useful opinions. You should file these with your 'Editor's marked copy'.

Another informal way to collect information is meetings with students. Try to attend students' seminars or vacation courses, and discuss the course with students.

What do you do with all this information? To start with, it is impractical and expensive to notify every student every time a mistake is noticed. It is too expensive to reprint complete units because they contain several mistakes. The first job is to decide whether corrections need to be made urgently or whether they can wait. Decide which errors are serious enough to mislead students, and then prepare an errata sheet. This lists page and line references, gives the error, and gives the correct version, like this:

Page 12, line 15: 'telephone' should read 'television'.

Sometimes a complete sentence or paragraph will be given.

When there is a more substantial mistake, for example an assignment turns out to be unsuitable, a complete page or even several pages can be rewritten and printed separately.

In both cases, the sheets of paper are sent to all students already studying, and inserted into all new volumes despatched to students.

Errata pages should always be dated and coded with a number. If more errors are discovered, you would normally replace the first page with an updated version.

To ensure that students always receive errata sheets and the like, you can use the course contents list. Look back at Example 41, and you will see it lists 3 errata sheets, one with each volume. The course contents list must always be updated when a new errata sheet is added.

In cases where part of a course is slightly unsatisfactory, it is usually necessary to wait until the course is revised (see section 3). It is not possible to revise courses simply because they can be improved. It is expensive to produce printed materials, so that course correction and revision must be planned, just as initial course development is planned.

EXERCISE 1

You have recently launched a new mathematics course, and you receive the following letter from a student. What do you do?

Dear Sir

I am very disappointed in the mathematics course I bought from you. I paid a lot of money for it, and now I find all the answers given for exercises in Unit 1 are wrong. This is not good enough. Please send me back my money.

Yours faithfully
John Mbiri

(5 minutes)

Comment

This is serious, if the student is right. Your first step must be to check if he is correct. Perhaps he was confused and looked in the wrong place for the answers. Or perhaps he could not do the work and thought his answers were correct and the book was wrong.

You check and discover the student is right. The answers have been numbered wrongly, so every answer given is wrong. First, a letter of apology must be sent as soon as possible to the student, probably signed by your director. The letter should also thank him for pointing out the error, and send him the correct version. You hope that in the circumstances he will decide to keep the course.

Next, this is clearly an important error and should be corrected immediately. As it involves a complete set of answers, it will probably be best to reprint a complete page. The correct page must be sent to every student as soon as possible, and copies must go to the despatch department with instructions for distributing the page with future course books.

You must also alter the course contents list, if you have one, and any other relevant records concerning the course material.

2. Periodic assessment

You will need to make a periodic check on the course to see if change is necessary. Institutions usually have a policy of assessing courses after a fixed period of operation, often 5 or 7 years. In practice, assessment is often less frequent, as pressure of work means course revisions have to be postponed.

For course assessment, we can choose from a range of methods, and will usually use several together.

a. We should consult any data already in the file.
b. We can send a questionnaire to a sample of students.
c. We can send a questionnaire to tutors.
d. We can obtain an external assessment of the course materials. We would ask a respected authority in the subject to check the material and comment on it.
e. We can consult experts and people known for their innovative approaches to the subject to find out about the latest methods of teaching the subject. We can then decide if there has been a major change since the course was started.
f. We can, if we can find them, consult some former students on the course to see if, retrospectively, it was as useful as they had hoped.
g. We can consult potential students, to see what they hope to gain from studying the subject.

If you need further advice on techniques of monitoring and assessment, consult Roger Mitton's manual Practical Research in Distance Teaching published by IEC.

When you have collected and analysed your data, what should you do? If the course needs revising, section 4 will explain what to do. But often, the course will still be good. You can continue to offer it, perhaps with very minor changes.

How long can you keep the same course? A good course should remain usable for many years, but perhaps when material is over 10 years old it is time to consider replacing it or revising it. Even if the course content is satisfactory, written material begins to read as old-fashioned after a few years, and students will notice. This is a matter you must judge for yourself.

EXERCISE 2

At the beginning of the section, I mentioned that institutions sometimes postpone course assessment because other work gets priority. Now you have read the section, what do you think about this? Is it wise to postpone assessment?

(5 minutes)

Comment

If a course has major problems, students' comments or records will inform

you of this without assessment. But your institution is open to criticism if it runs courses which have not been recently assessed. Moreover, routine assessment can sometimes unearth quite serious criticisms of courses which you thought were good.

3. Course maintenance

Course maintenance means keeping courses up to date. You will need to keep track of stocks and, before reprinting, insert all corrections and amendments. If there are changes in the curriculum or the exam syllabus, you have to update the material. Similarly, if there are changes in the world at large, such as political changes, you may have to change material. Even today, some courses from Southern African countries still refer to Rhodesia, while in the 1980s I came across a British course which talked about Tanganyika. There may also be changes in resources linked with the course: a new edition of a textbook, with different page numbering; a reference book which goes out of print; references to radio programmes which are no longer broadcast. The editor has to keep track of all these kinds of changes, and act to update the course material.

How do you know that a course needs updating? This is difficult, but you need not leave it entirely to chance. Use the same course file which you use for corrections and comments to file records of any points you notice that will need checking. Every year, check the status of all your courses, in case you have overlooked something that needs attention.

What can you do if change is needed? You can issue updating slips, in the same way as you produce errata sheets. For example, if the course contains page references to a textbook which need changing for a new edition, list the new references on a loose sheet of paper. If the stocks of the course are very low, you might decide not to use the remaining books and reprint an amended edition immediately. Or you may decide to issue a short booklet to supplement the course, covering a new element in the syllabus. Supplementary booklets are quick to produce and cheaper than revising a complete course.

Try to design courses so that they will accommodate routine changes, and reduce the work of course maintenance to a minimum. If tutor-marked assignments must be changed with every new intake of students, arrange for them to be printed separately from the course units. You do not need to reprint all units every time you issue new assignments. If a course has optional components which change from time to time, print option booklets separately. If an exam syllabus is likely to change, or a course leads to more than one exam, print books for a 'core' course, covering the main components, and separate booklets for exam practice and other additional material. Try to think ahead to save yourself unnecessary work and save your institution unnecessary expense.

4. Revising courses

Revising a course means changing it in such a way that many pages of the course, or even all of it, are changed. This means it must be completely reprinted. It is different from correcting or amending the course, when only a few pages are changed.

Let us imagine you have some criticisms of a course, and you are trying to decide whether or not to revise it. What factors could influence your decision?

a. How old is the course? Is it only a few years old, or has it been on offer so long that you should change it?

b. How successful has it been? Do positive reactions from tutors and students outweigh criticisms?

c. Have you had time to evaluate the course properly? If it has only been offered for a year or two, you will not have a clear all-round picture of what revisions are needed. (This does not apply to a pilot version of a course, which should be revised after a year or two.)

d. What stocks of the course do you have already printed? If you have many copies left, you probably cannot afford to waste them. If you have few copies left, you may have time to revise before reprinting.

e. How much longer will the course be on offer? If it will be withdrawn in a year or two, it is hardly worth revising.

f. How many students does the course have? If it has few students, you probably cannot justify the cost of revision.

g. Do you have sufficient printing capacity and finance to produce the revised version? Unplanned revision could have drastic effects on your institution's efficiency and on its finances.

h. What priorities does your institution have? Sometimes you may have to choose between revising an old course and introducing a new one. Which is more important to your institution?

If a course is unsatisfactory, and it is impractical or uneconomic to revise it, you may have to consider withdrawing it, temporarily or permanently. If you remain uncertain about whether or not to revise a course, it usually means that the course is at least passable, and can continue to run for a little longer.

How do you decide what to revise? The whole course, or part of it? If you decide that the whole course needs substantial alteration, you should perhaps consider replacing the course. You could commission an entirely new course. But usually, in course revision, some sections or units are completely rewritten, others amended, and some remain unchanged. That is, only those parts of the course which are too difficult, teach badly, or are out-of-date, are changed.

Revision ought to take place on a planned basis. Your institution might plan to revise, say, three courses out of 30 each year. Thus, each course would be revised every 10 years. It is normally quite impossible to revise all courses at once. Revision must be included in a course production schedule.

To revise a course, you should follow the same course development plan that you use for a new course. You will be able to take some short cuts, however, and there will be much less work to do.

You will have to identify a writer for the revisions. Often, the best writer is the person who wrote the course originally, but she may be unable or unwilling to revise a course after a gap of several years. If you can use the same writer, you will usually find that she is quite critical of what was written some years ago, and quite receptive to new

ideas. After all, if she was not prepared to alter the course, she would not agree to revise it.

If you cannot use the same writer, you could appoint one of the course tutors, who is already quite familiar with the material, or you might have to appoint someone who had no previous contact with the course. These people may have no experience of writing for distance education, and it could be expensive to train them for a minor job like revision. Another more serious difficulty is that new writers usually want to reshape the course completely. They want to rewrite it in their own way. It can be difficult, even impossible, to persuade them that a good part of the course is tried and tested and only some parts need changing.

Another possibility is for you, the editor, to undertake the revisions. If you have the necessary subject knowledge, this can be a way to overcome the difficulties outlined above.

Summary

This unit has suggested that once a course is in operation, you should collect data on errors and monitor the course carefully. Where necessary, correct the errors. After a few years, assess each course thoroughly and if necessary revise it. An institution needs a policy on course revision, to ensure that quality is maintained.

ASSIGNMENT L

Draft a plan for systematic course revision for your institution. Think about how often courses should be evaluated. Think about how many can be revised each year. Try to fit in every course to your plan.

If your institution already has a course revision plan in operation, consider how far it fits with the suggestions in this unit, and propose changes as necessary.

Discuss your ideas with colleagues. Perhaps your plan can be adopted by your institution, if it is generally liked.

Unit 15 : Co-ordinating writing and production

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Introduction

This manual has covered the jobs an editor does in sequence. In the first part the emphasis was on working with writers, while the last part put more emphasis on working with production staff, such as typists and designers. This unit will look at the complete process of course development, show how the different bits fit together, and examine the key role of the editor throughout the process.

At the end of this unit, you will be able to:

* describe the editor's role at each stage of course development;
* devise and use a course development schedule;
* make emergency plans when things go wrong.

Keep your own institution in mind as you work through this unit. It will be of more use to you if you can adapt the ideas and advice to fit your own circumstances.

The unit will only take about an hour to complete, and has no assignment.

1. The editor's role in course development

The table below shows the main stages of course development with editorial jobs listed alongside. Sometimes one person will do all these jobs. In other cases certain tasks can be allocated to different people by a managing editor. The table assumes a decision has been made to offer a new course. Some stages may take place in a different order in some institutions.

Stages	Editorial job
1. Identify writers	Selection and appointment of writers (sometimes done by management)
2. Brief or train writers	Done by editor
3. Plan course	Editor is part of team
4. Make writing and production schedule	Done by editor
5. Draft sample material	Advise writer
6. Assess sample material	Organised by editor
7. Revise sample material	Brief writer in light of assessment
8. Testing of sample material	Organised by editor, who analyses results and reports to writer
9. Write all units and revise them	Get drafts typed
	Organise assessment in course team
	Take part in assessment
	Seek copyright permissions
	Check availability and suitability of support materials
	Edit
	Commission illustrations
	Keep writer on schedule
10. Units agreed	Copy edit and mark up
11. Units typeset	Keep typist to schedule
12. Proof reading	Editor is one reader
13. Corrections typed	Keep typist to schedule
14. Check corrections	Editor does

15. Make up pages	Advise designer
	Keep up to schedule
16. Check make up	Editor does
17. Print	Brief printer
	Keep up to schedule
18. Check	Editor does
19. Despatch	Prepare course contents list
	Open file for comments and errors

EDITOR'S ROLE IN COURSE DEVELOPMENT

2. Devising and checking a schedule

The table makes it clear that course development is a lengthy, complex process. It is not just a matter of a writer handing scripts to an editor on a given date. You need a comprehensive schedule to manage the process. It is best to arrange it unit by unit. Here is an example of part of a schedule for one unit.

Course: _____ Unit: _____

Job	Date due	Date done	Signed
First draft			
Typed			
First edit			
Assessed/tested			
Revised			
Copyright permissions sought			
Pictures commissioned			
Text approved			
Typeset			
Proof reading			

You will find that you will need several different schedules at different stages of course development, some quite simple and some rather complicated.

EXERCISE 1

Consider the stages of development you use in your own institution. Can you fill in a blank table like the one above with an imaginary but realistic schedule for one of your courses? Include all the stages from first draft to printing, and write dates in the 'dates due' column.

(15 minutes)

Once you have made a schedule, you have to keep to it. This, of course, requires effort. The ideas below may help you.

* Post the schedule on the wall, where you can always see it.

* Always check off each step as soon as it is complete, so the schedule is always up-to-date and accurate.

* Make several copies of the schedule for each course. Prepare a copy for each person involved, marking clearly the tasks which involve that individual. For example, you would highlight the date for commissioning illustrations on the illustrator's copy. Hand each person their copy.

* Arrange regular course production progress meetings. These should be at least once a month. Some institutions have short meetings once a week. All problems are aired at these meetings.

* Check the schedule regularly. A routine check of progress on every course you are working on should take place every week. You can remember to do this if you fix a regular day and time for it.

3. Critical points in course development

There are some points where things are more likely to go wrong than others. You should by now have a good idea of the trouble spots.

EXERCISE 2

List two or three points that you think are critical ones. Use the table in section 1 to help you.

(3 minutes)

Comment

The biggest trouble spot is stage 9. Writers tend to fall behind schedule, or even write nothing at all. Writers who do not produce reduce

many an editor to a state of despair. The next most serious problems arise at stage 5. Again, it concerns writers, who may prove unsuitable when they submit sample material, or may withdraw because they do not want the job after all, or you may have to withdraw your offer to them because they are too slow. If this happens, you are back to square one, identifying a writer. A third problem can occur at stage 9 again. You may not be able to obtain permission for use of copyright material or, more seriously, you may discover that supplementary materials you were relying on, like a textbook, are no longer available.

The production and printing stages bring their own problems, some of which have been mentioned in Unit 13. The course units have to pass from person to person frequently during production, and if one person is late, then everyone else is affected. It is almost impossible to make up time lost during stages 12 to 18.

4. Dealing with emergencies

A good schedule will help avoid emergencies. But let us suppose a crisis occurs. What do you do? Crises are almost always a matter of time. If deadlines to not matter, work can start again in the normal way. But time usually does matter, so we must consider how to act quickly. Here are some ideas.

* To shorten writing time:

  . Find as many writers as you can and get them to produce a small number of units each. You may be able to do this in a workshop. You will need extra editorial capacity as well.

  . Produce a low-cost temporary course. Find a reasonable textbook, and get a short study guide written based on the textbook.

  . Offer the course for a year or so, until you have time to prepare a full course.

* To shorten rewriting time:

  . When materials are not available, and part of a course must be rewritten, in many cases the editor could draft the amendments. You could do this with guidance from the writer, who would check and finalise everything. While you rewrite, the writer carries on writing new material.

* To shorten course development:

  . Cut out testing.
  . Arrange group or outside assessment on only one or two sample units. Process the rest immediately.
  . Typeset straight from handwritten material. Cut out the typing of drafts.

You may not like these ideas. Can you think of any other, better ways of dealing with emergencies? A distance-teaching institution is responsible to its students, who must come first. You have to resolve conflicts between the wish to produce high quality materials and the need to serve students.

EXERCISE 3

Here are some events which might occur.

- A part-time writer sends you a unit in the post, without keeping a copy. The unit is lost in the post.
- The textbook used with the course goes out of print just before you print.
- The designer does artistic drawings which nobody can understand.

Imagine you are the course editor who has to deal with this situation. Discuss what you would do with a colleague.

(15 minutes)

Comment

There are several ways of dealing with each situation. The examples come from a game called 'On course', which is part of IEC's manual on The Administration of Distance Teaching Institutions. If you have a copy of the manual in your institution, you may like to arrange a training session for editorial and production staff to play the game.

Summary

This final unit has reminded us that the editor is at the centre of course development and is largely responsible for co-ordination. It has also reminded us that an editor is concerned with administration and relations with colleagues as well as with editing. By working through this manual you should have developed confidence to handle all these aspects of your work. It remains to wish you good luck.

Glossary

You will find below a short list of the main distance-teaching and editing terms used in this manual.

aims	statements describing the expected outcomes of the course, expressed more broadly than objectives
artwork	the final version of the text which is used for printing
assessment	term used in distance teaching for (i) assessing the student's progress. See also self-assessment question (ii) assessing the quality of course material
assignment	work that a distant student sends to a tutor for marking
checklist	list of activities or points with space for students to mark off what has been done
copy	term used to describe the draft of the material that is prepared for typesetting
copy edit	the final stage of editing, where the content of the draft is already agreed and the copy is marked up for typesetting
copyright	right given by law to author, publisher, etc. to print, publish or sell copies of a work
correspondence course	a form of distance teaching where tutors and students contact each other by post
course outline	plan of course made before writing starts. It includes a description of what will be taught, and how
course team	group of people who work together to develop a course, including writers and editors
development question	exercise which encourages students to develop their ideas
format	agreed arrangement of material on the page
house style	conventions used by a publisher when preparing material for printing
landscape	term used to describe a page arranged with the longer sides horizontal

layout	arrangement of the material on the page
lesson	term often used instead of unit
lower case	term used for small letters
make up	paste up or otherwise prepare pages for printing
mark up	mark instructions for the typist on the copy
objectives	statements describing what students will be able to do on completing their studies. Also called behavioural objectives
paste up	stick all the material in the right places on pages before printing
portrait	term used to describe pages with the longer edges at the sides
proof	typed version of material which has to be checked before printing
self-assessment question	an exercise where students check the answers themselves in order to assess their progress. Often abbreviated to SAQ
study guide	term often used for course material based on a textbook
tutor	a teacher who marks and comments on students' work and gives them advice
typeface	style of type
typesetting	typing the final version of the text that is to be used for printing
unit	courses are usually divided into units. Each unit covers a topic or takes a certain time to complete
upper case	term used by printers to describe capital letters
workbook	term often used for a course book which contains space for students to write their answers
worksheet	another word for assignment
writing workshop	a meeting, usually lasting several days, where a number of writers work together to develop materials. The workshop may include training as well as writing

Reading list

I have selected the books and articles in the list below on the grounds that I myself have found them useful. I have only listed items which are likely to be accessible.

Butcher, Judith
Copy-editing
Cambridge, Cambridge University Press, 1975

An invaluable handbook on copy editing, but rather expensive

Dodds, Tony
Administration of distance-teaching institutions
Cambridge, International Extension College, 1983

An IEC manual. The unit on managing course production and the accompanying game 'On course' are particularly useful for editors

Gibbs, Graham, Alistair Morgan and Elizabeth Taylor
'Why students don't learn', in Student learning from different media in the Open University
Milton Keynes, Open University, Teaching at a Distance International Research Review 1, 1982, pp.9-32

A useful paper about study skills, which contains some helpful ideas for course designers

Hall, Celia
Editing for everyone
Cambridge, National Extension College, 1983

A manual on copy editing, which contains practice in the various skills

Hartley, James
Designing instructional text
London, Kogan Page, 1978

A good handbook on textual communication

Hartley, J (ed)
The psychology of written communication
London, Kogan Page, 1980

A collection of papers, many of which contain useful material for editors of educational texts

Hart's rules for compositors and readers at the University Press
Oxford, Oxford University Press, any recent edition

A useful reference book for all copy editors

International Extension College
Writing for distance education
Cambridge, International Extension College, 1979

A training manual for writers. An editor needs to be familiar with the techniques of writing for distance education

Jenkins, Janet
Editing distance-teaching texts
Cambidge, International Extension College, 1975

The present manual grew out of this short book. You might find it a useful summary

Jenkins, Janet
Materials for learning
London, Routledge and Kegan Paul, 1981

This book contains comprehensive advice about preparing different kinds of distance-teaching materials

Marland, P W and R E Store
'Some instructional strategies for improved learning from distance-teaching materials', Distance Education, Vol. 3, No. 1, 1982, pp. 72-106

Guidelines on the use of objectives, overviews and other common features of course units

Mitton, Roger
Practical research in distance teaching
Cambridge, International Extension College, 1982

An IEC manual, containing chapters on assessing and testing instructional materials

Morris, C S
Equipping small-scale printing units
London, Commonwealth Secretariat, 1983

This book explains printing from typesetting to binding and is an excellent handbook for editors or others involved in the administration of printing

Perraton, Hilary
The techniques of writing correspondence courses
Cambridge, International Extension College, 1973

A short introduction to writing for distance education

Riley, Judith
The problems of writing correspondence lessons
Milton Keynes, Open University Distance Education Research Group, 1984

A constructive discussion of writing problems and the relationship between writers and editors

Slater, John, M Coles and T Paynter
Borders, layout and design
Blackwood, Alpha Visuals, 1984

A book full of ideas for designing educational texts

Smith, Frank
Writing and the writer
London, Heinemann Educational Books, 1982

This book discusses everything that writing involves for a writer, and is full of ideas and information useful to editors